

**Appropriate Assessment Screening  
of Draft Variation 2 to  
Kilkenny County Development Plan  
2008-2014**

**Kilkenny County Council**



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Front Cover Photographs source: National Biodiversity Data Centre

## Table of Contents

	Section 1	
1.1	Introduction to Habitats Directive and Article 6 Assessment	4
1.2	Objectives of Appropriate Assessment	4
1.3	Consultation	4
1.4	Legislation and Guidance	5
1.5	Procedure for Stage One Screening	9
	Section 2	
2.1	Overview	12
2.2	Natura 2000 sites in County Kilkenny & adjoining counties	12
2.3	Brief Description of the Natura 2000 sites	14
2.3.1	Sites within County Kilkenny	14
2.3.2	Sites within 15km of the County Kilkenny border	17
	Section 3	
3.1	Table 3: Natura 2000 sites within County Kilkenny	22
3.2	Table 4: Natura 2000 sites adjacent to County Kilkenny	27
	Section 4	
4.1	Screening Assessment Criteria - Discussion of Potential Impacts	34
4.2	Description of individual elements of plan likely to give rise to impacts on the Natura 2000 sites	35
4.3	Describe any likely –direct, indirect or secondary impacts of the project: changes to the site; and impacts on the Natura 2000 site	36
4.3.1	Natura 2000 sites within 15km of the county border	36
4.3.2	Natura 2000 sites within County Kilkenny	38
4.4	Indicators of significance	46
	Section 5	
5.1	Discussion of potential impacts from the Draft Variation	47
5.2	Development Policies and Objectives	48
5.3	Conclusion	48
	Bibliography	49

## Appendices

### Appendix 1

Assessment of policies in the draft Variation.

### Appendix 2

Circular PD 7/09 Wastewater Discharge Regulations

### Appendix 3

Status of Water Supply and Wastewater Treatment Capacities in County Kilkenny

Finding of no significant effects matrix

## **Section 1**

### **1.1 Introduction to Habitats Directive and Article 6 Assessment**

The 1992 European Habitats Directive (*Council Directive 92/43/EEC of May 1992 on the conservation of wild habitats and of wild fauna and flora*) requires member states to designate areas of their territory containing a representative sample of important habitats and species. These areas are known as Natura 2000 sites, and they include Special Areas of Conservation (SACs) for protected habitats and species, and Special Protection Areas (SPAs) for protected birds. Generally they are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.

The European Habitats Directive (Council of the European Communities 1992) was transposed into Irish legislation by the European Communities (Natural Habitats) Regulations 1997 and amended in 1998 and 2005.

The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for damaging a site. The aim of the Directive is to create a network of protected wildlife sites in Europe, maintained at a favourable conservation status.

Sites may contain priority or non-priority habitats and species. Priority habitats include blanket bogs, some types of fens, bog woodlands, alluvial forest and fixed coastal dunes. The only justifications for damaging a qualifying "priority" site are "considerations relating to human health and public safety, to beneficial consequences of primary importance of the environment, or further to an opinion from the European Commission, to other imperative reasons of overriding public interest, but this can only be allowed after an assessment is made in line with the article 6 procedure, and there are no other alternatives and an agreement is reached with the European Commission.

Article 6(3) and (4) of the Habitats Directive requires that an Appropriate Assessment be carried out for these sites where projects, plans or proposals are likely to have an effect.

Article 6(3) and (4) of the Habitats Directive requires an appropriate assessment procedure for any plan or project not directly connected with or necessary to the management of a designated European site, but which has the potential to have implications for the site in view of the site's conservation objectives. The proposed Draft Variation 2 to the Kilkenny County Development 2008-2014, therefore, falls under the remit of Article 6.

### **1.2 Objectives of Appropriate Assessment**

An Appropriate Assessment is an evaluation of the potential impacts of a plan on the conservation objectives of a Natura 2000 site, and the development, where necessary, of mitigation or avoidance measures to preclude negative effects. The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process:

- A plan should aim to avoid any negative impacts on Natura 2000 sites by identifying possible impacts early in plan making, and writing the plan in order to avoid such impacts.
- Where negative impacts may not be avoided, mitigation measures should be applied during the AA process to the point where no adverse impacts on the site remain.
- Under a worst-case scenario, a plan may have to undergo an assessment of alternative solutions. Under this stage of the assessment, compensatory measures are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan is required for imperative reasons of overriding public interest.

### **1.3 Consultation**

The statutory agency responsible for Natura 2000 sites is the National Parks and Wildlife Service of the Department of Environment, Heritage and Local Government.

In order to inform preparation of the Appropriate Assessment Screening, a meeting was held with the NPWS Conservation Ranger in March 2011 to flag general issues of concern for the Natura 2000 network within County Kilkenny. Issues highlighted included:

- Water quality and adequate treatment of wastewater.

- Cumulative Effects
- Effects of multi-unit housing developments, which may be located at geographically remote distances from the site, but which have hydrological connections with the site, through abstractions from, or discharges to, watercourses such as drainage ditches, streams, or tributaries.
- Proposed designation of the Nore SPA for the protection of the Kingfisher, species listed on the E.U. Birds Directive.

## 1.4 Legislation & Guidance

### Background

The requirement to carry out an appropriate assessment stems from article 6(3) & (4) of the Habitats Directive - *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora*.

Further details on the interpretation of article 6 are provided in the publication - *Managing Natura 2000 sites – The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC (2000)*.

Suggested methods for carrying out an appropriate assessment are proposed in the publication - *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, (November 2001)*.

The European Habitats Directive (Council of the European Communities 1992) was transposed into Irish legislation by the *European Communities (Natural Habitats) Regulations 1997* and amended in 1998 and 2005.

A court case taken by the European Commission against Ireland found that Ireland was not fulfilling its obligations to carry out appropriate assessments of plans - *Case C-418/04 Commission of the European Communities v Ireland, (December 2007)*, failure of a member state to fulfil obligations – Directive 92/43/EEC – Conservation of natural habitats and of wild fauna and flora – Article 6 – Transposition and application’.

Following from the judgement of the European Commission the Department of the Environment, Heritage and Local Government issued a circular outlining the requirement to carry out appropriate assessments in relation to land use plans - *Appropriate Assessment of Land Use Plans – Circular Letter SEA 1/08 & NPWS 1/08, 15 February 2008*.

In December 2009 the Department of the Environment, Heritage and Local Government published the *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*.

Outlined below is a brief outline of the some of the relevant sections to this report of the legislation and guidance relating to Appropriate Assessments.

#### ➤ Habitats Directive - 92/43/EEC

Article 6(3) requires:

‘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 objective. In the 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’.

Article 6(4) relates to finding of a negative assessment:

‘If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is

protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest'.

- Managing Natura 2000 sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (also referred to as MN2000).

Further details on the interpretation of article 6 are provided in this publication.

The procedures of article 6(3) and (4) are triggered not by a certainty but by a likelihood of significant effects, arising not only from plans or projects located within but also outside a protected site.

The term 'management' refers to the 'conservation' management of a site, and 'not directly connected with or necessary to . . .' ensure that a non-conservation component of a plan or project which includes conservation management amongst its objectives may still require assessment'.

The notion of what is 'significant' needs to be interpreted objectively. At the same time, the significance of effects should be determined in relation to the specific features and environmental conditions of the protected site concerned by the plan or project, taking particular account of the site's conservation objectives. The combination of other plans or projects should also be considered to take account of cumulative impacts.

An assessment should be recorded and it should be reasoned. The assessment is a step preceding and providing a basis for other steps. The information provided according to the standard from established by the Commission forms the basis for a Member State's establishment of the site's conservation objectives. The form requires that all Annex 1 habitat types present on a site and all Annex II species occurring at the site should be mentioned and this information forms the basis for a Member State establishing 'the site's conservation objectives'. The integrity of the site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives.

- 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, (November 2001).

The guidance sets out the assessment requirements of Article 6 in a stage by stage approach.

#### Stage One – Screening:

Process to identify the likely impacts upon a Natura 2000 site of a plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

#### Stage Two - Appropriate Assessment:

The consideration of the impact on the integrity of the Natura 2000 site of the plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

#### Stage Three - Assessment of Alternative Solutions:

A process which examines alternative ways of achieving the objectives of the plan that avoid adverse impacts on the integrity of the Natura 2000 site.

#### Stage Four - Assessment where no Alternative Solutions exist and where Adverse Impacts Remain:

Assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the plan should proceed.

The guidance relating to Stage One – Screening is set out in further detail below.

Screening examines the likely effects of a plan and considers whether it can be objectively concluded that these effects will not be significant. This assessment comprises four steps:

- Step 1 – determining if the plan is directly connected with or necessary to the management of the site.  
For a plan to be 'directly connected with or necessary to the management of the site', the 'management' component must refer to management measures that are for conservation purposes, and the 'directly' element refers to measures that are solely conceived for the conservation management of a site.
- Step 2 – describing the 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.  
In describing the plan, it will be necessary to identify all those elements of the plan, alone or in combination with other projects or plans, which have the potential for having significant effects on the Natura 2000 site.
- Step 3 – Identifying the potential effects on the Natura 2000 site;  
Identification of impacts upon the Natura 2000 site will require a characterisation of the site as a whole or of the areas where impacts are most likely to fall. Impact identification will also need to consider cumulative impacts from other projects or plans.
- Step 4 – Assessing the significance of any effects on the Natura 2000 site.  
The assessment of the significance of the impacts identified in step 3. It is important to recognise which particular elements of a plan or project are likely to have impacts on a Natura 2000 site.

To complete the screening stage, it will be necessary to gather information from a variety of sources. It may often be possible to make the screening decision using currently published material and consultation with the relevant nature conservation agencies. Implicit in the habitats directive is the application of the precautionary principle, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty.

The screening assessment should be carried out in the absence of any consideration of mitigation measures that form part of a project or plan and are designed to avoid or reduce the impact of a project or plan on a Natura 2000 site.

Once the screening matrix has been completed, the decision could be in the form of one of two statements: (1) It can be objectively concluded that there are not likely to be significant effects on the Natura 2000 site; or (2) The information provided either suggests that significant effects are likely or that sufficient uncertainty remains to indicate that an appropriate assessment should be carried out.

Outcomes - following the screening assessment, if it can be concluded at this stage that there are unlikely to be significant effects on the Natura 2000 site, it should be good practice to complete the finding of no significant effects report which should be made available to relevant stakeholders.

#### ➤ Appropriate Assessment of Land Use Plans – Circular Letter SEA 1/08 & NPWS 1/08

Any draft land use plan or variation to it proposed under the Planning and Development Act 2000 (as amended) must be screened for potential impact on areas designated as Natura 2000 sites (SACs or SPAs).

This screening should be based on any ecological information available to the authority and an adequate description of the plan and its likely environmental impacts.

The National Parks and Wildlife Service (NPWS) of the Department has a formal consultation role (through the Development Applications Unit (DAU)) as part of the screening and assessment process.

The appropriate assessment should be published concurrently/ jointly with the SEA of the plan but should be clearly distinguishable from it.

A full appropriate assessment means an assessment based on best scientific knowledge by a person with ecological expertise of the potential impacts on the plan on the conservation objectives

of any Natura 2000 site and the development, where necessary or mitigation or avoidance measures to preclude negative effects.

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, December 2009).

This guidance document establishes the steps and procedures to be followed in undertaking an appropriate assessment of statutory land use plans within the framework of current planning legislation.

It is recommended that the Department be consulted by a Planning Authority at every stage of the plan making process (i.e. at the pre-draft, draft and proposed amendments stages). The Department's comments should be taken into account by the planning authority before the plan is adopted.

If a plan is likely to undermine any of the site's conservation objectives (i.e. objectives that relate to the Birds or Habitats Directives), it must be considered likely to have a significant effect on that site. Conversely, if a plan or project will have impacts on a site, but these impacts will clearly not undermine those conservation objectives, it is not considered that it will have a significant effect on the site. The requirement is not to prove what the impacts and effects will be, but rather to establish beyond reasonable scientific doubt that adverse effects on the site integrity will not result.

Screening can be used to establish which policies and objectives have potential to have significant effects, and therefore the ones that require further attention at the AA stage.

The guidance sets out four steps have been used to produce a screening statement:

Step 1: Description of Plan and plan area characteristics

Step 2: Identification of Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives.

Step 3: Assessment of Likely Effects

Step 4: Screening conclusion and statement

Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan, in which case the screening process is repeated on the altered plan.

Specialist ecological input and advice is recommended in undertaking the various elements of screening. Screening should include any Natura 2000 sites within the likely zone of impact of the plan; a distance of 15km is recommended.

- Planning & Development Act 2010, Department of Environment, Heritage and Local Government

Section 57 of the Planning and Development Act 2010 proposes to amend the Planning and Development Act 2000 (as amended) by the inclusion of Part XAB relating to Appropriate Assessment. This is quite a substantial amendment to the principal act; however this section has not, as yet, commenced.

- Draft European Communities (Birds and Natural Habitats) Regulations 2010

These Draft Regulations have been prepared to address a number of judgments of the European Court of Justice against Ireland, notably C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law. The Commission has indicated that unless these matters are addressed, they will revert to the ECJ seeking fines against Ireland for failure to address the judgments of the Court.

The closing date for receipt of comments was 3<sup>rd</sup> September 2010. These regulations will impact on the provisions of the Planning and Development Act 2000; however they are still in draft form and have not commenced.

## 1.5 Procedure for stage one screening

This report consists of a stage one screening for Habitats Directive Assessment of the proposed Draft Variation 2 to the Kilkenny County Development Plan 2008-2014. This stage examines the likely effects of the draft Variation on Natura 2000 sites in Kilkenny and within a 15km radius of the county and considers whether it can be objectively concluded that these sites will not be significantly impacted. This assessment comprises four steps:-

Step 1: determining whether the project or plan is directly connected with or necessary to the management of the site:

The draft Variation is a spatial planning framework for County Kilkenny and is not directly connected to the management of any Natura 2000 sites. It does include measures to protect, conserve and manage the county's natural heritage in a sustainable manner, including Natura 2000 sites, and to seek their enhancement where appropriate and feasible.

Step 2: 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:

Section 7 of the Planning and Development (Amendment) Act 2010, sets out that the written statement of a County Development Plan (CDP) must contain a Core Strategy which shows that the development objectives in the development plan are consistent, as far as practicable, with national and regional development objectives set out in the National Spatial Strategy and Regional Planning Guidelines. A planning authority shall prepare a core strategy not later than one year after the making of the Regional Planning Guidelines and shall accordingly vary the development plan. The Regional Planning Guidelines for the South East Region were adopted on the 26<sup>th</sup> July 2010 and this variation provides for the inclusion of the core strategy in the Development Plan.

Draft Variation 2 to the Kilkenny County Development Plan 2008-2014 includes text and a set of maps illustrating the core strategy at county level and its impact on a number of settlements.

At present, Kilkenny contains zoned land in 18 Local Area Plans and in the Kilkenny City & Environs Development Plan. As of June 2010, the total amount of zoning for residential use equalled approximately 870 hectares (this included zoned land in 6 LAPs which are now expired).

To accommodate the project population expansion, the South Eastern Regional Planning Guidelines determined that in the order of 254 hectares of zoned land would be required in Kilkenny over the period 2010-2016. Therefore the core strategy will involve a significant level of phasing of zoned development land, in order to meet the objectives of the Regional Planning Guidelines. The Regional Planning Guidelines have divided the county allocation between the gateway (Waterford environs in Co. Kilkenny), the hub (Kilkenny city) and the remainder.

As part of this core strategy, a total of fifteen Local Area Plans (Ballyhale, Ballyragget, Bennettsbridge, Freshford, Goresbridge, Inistioge, Kells, Kilmacow, Knocktopher, Mooncoin, Mullinavat, New Ross Environs, Slieverue, Stoneyford and Urlingford) will be affected.

Of these fifteen, six Local Area Plans have expired (for Ballyhale, Ballyragget, Inistioge, Knocktopher, Mooncoin and Urlingford). These will be incorporated into the County Development Plan. These settlements will no longer be subject to zoning maps, but a tight development boundary will be delineated around the built-up area. An objective will be included in the Development Plan to encourage development appropriate to the scale and character of the settlement within this boundary.

The remaining nine Local Area Plans (Bennettsbridge, Freshford, Goresbridge, Kells, Kilmacow, Mullinavat, Slieverue, Stoneyford and New Ross Environs) will be revised, and in every case, an amount of land currently zoned for residential development will be phased for future development. Land identified as Phase 2 will not be permitted to be developed during the lifetime of the plan. A statement will be included in the Development Plan to this effect. The revised zoning map included in the Development Plan will then take precedence over the LAP zoning map. Also, even though the LAPs may expire prior to 2014, the zoning map as contained in the CDP will be in place until 2014.

A further five LAPs (Callan, Castlecomer, Ferrybank/Belview, Graiguenamanagh and Thomastown) will be revised following on from the adoption of the core strategy. Table 2.1 below summarises the approach to the development framework for all LAPs.

Four existing LAPs will not be affected in any way. Woodstock LAP contains no residentially zoned land and the recently adopted LAPs for Fiddown, Piltown and Gowran were drafted taking account of the Regional Planning Guidelines.

The City & Environs Development plan will also be revised to take account of the city's core strategy. The amount of zoned land will be reduced through phasing. The SEA screening for the Variation to the Kilkenny City Development Plan will be undertaken separately.

Table 1: Effect of Variation on Local Area Plans in Co. Kilkenny

1	Ballyhale	Expired – incorporate into the CDP
2	Ballyragget	Expired – incorporate into the CDP
3	Bennettsbridge	Revise zoning map
4	Freshford	Revise zoning map
5	Goresbridge	Revise zoning map
6	Inistioge	Expired – incorporate into the CDP
7	Kells	Revise zoning map
8	Kilmacow	Revise zoning map
9	Knocktopher	Expired – incorporate into the CDP
10	Mooncoin	Expired – incorporate into the CDP
11	Mullinavat	Revise zoning map
12	New Ross	Revise zoning map
13	Slieverue	Revise zoning map
14	Stoneyford	Revise zoning map
15	Urlingford	Expired – incorporate in CDP
<b>Not included in this variation</b>		
1	Callan	To be revised following adoption of Variation
2	Castlecomer	To be revised following adoption of Variation
3	Fiddown	Keep as adopted
4	Gowran	Keep as adopted
5	Graiguenamanagh	To be revised following adoption of Variation
6	Piltown	Keep as adopted
7	Thomastown	To be revised following adoption of Variation
8	Woodstock	No residential zoned land
9	Ferrybank/Belview	To be revised following adoption of Variation

The proposed Core Strategy will influence investment programmes of various sections of the Council such as water services and roads. It takes into account the Council's *Water Services Investment Programme 2010-2012; Needs Assessment 2009*. Investment will be targeted to support and underpin the settlement hierarchy in the core strategy.

The draft variation is set within the framework of higher level plans including the existing County Development Plan and the National Spatial Strategy and Regional Planning Guidelines. As the draft Variation will facilitate reduced levels of growth than previously envisaged under the Kilkenny County Development Plan 2008-2014, the potential for significant effects on the Natura 2000 sites within or adjoining the county will be reduced. The primary areas for potential significant effects come from possible encroachment on sites of new development or ground water contamination, pollution from inadequately treated waste from treatment plants or ground water abstractions

affecting water-dependent sites. The county development plan contains existing policies for the conservation and protection of Natura 2000 sites, and also for the protection of non-designated sites; however the draft Variation proposes increased protection for Natura 2000 sites with particular regard to projects which have the potential for significant effects on the protected site or its nature conservation objectives. The draft variation includes the following policy:

- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams and drainage ditches).*

Step 3: Identifying the potential effects on the Natura 2000 site:

One of the key assets of the county is its diversity of natural heritage and landscapes. The county contains three main waterway corridors, the River Nore flows through the centre of the county from the north, the River Barrow flows along the eastern boundary of the county and the Lower River Suir flows along the southern boundary of the county. County Kilkenny contains several sites designated for their nature conservation value, most notably associated with the river network. There are 8 Natura 2000 sites within the County and 7 sites within 15km of the Kilkenny county boundary.

The DoEHLG Guidance on Appropriate Assessment on Plans and Projects in Ireland (December 2009) states that all N2000 sites within or adjacent the county must be mapped and tabulated, and site integrity and site conditions necessary to support the site integrity must be indicated. The information presented in Table 2 comprises a breakdown of Natura 2000 sites within County Kilkenny. The N2000 sites' designations are identified - Special Areas of Conservation / Special Protection Areas. The following information is listed for each N2000 site: - Site code, Site name, Qualifying interests, Conservation objectives and, Threats to site integrity.

Table 4 details sites within 15 kilometres of the county boundary.

Step 4: Assessing the significance of any effects on the Natura 2000 site:

The screening stage involves application of the precautionary principle proportional to the policy/objective and the Natura 2000 site in question. This section assesses the likelihood of potential impacts on the Natura 2000 sites. The assessment draws upon the information set out in sections 2 and 3, together with the information as set out in the appendices in relation to existing and proposed policies, and water supply and wastewater treatment capacities. The format of this section follows the assessment criteria in the screening matrix which is included in the *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, (November 2001)*.

Assessment criteria

- Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.
- Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of: - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other.
- Describe any likely changes to the site arising as a result of:- reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change.
- Describe any likely impacts on the Natura 2000 site as a whole in terms of: - interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site.
- Provide indicators of significance as a result of the identification of effects set out above in terms of: loss; fragmentation; disruption; disturbance; change to key elements of the site (e.g. water quality etc.). Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

## Section 2

### 2.1 Overview

This section sets out in table and map format the Natura 2000 sites both within County Kilkenny and also within a distance of 15km of Kilkenny, as is currently recommended in the Guidance for Planning Authorities (DoEHLG, Dec 2009).

### 2.2 Natura 2000 sites in Kilkenny and adjoining counties

Listed below are the Natura 2000 sites within Kilkenny and also in surrounding counties.

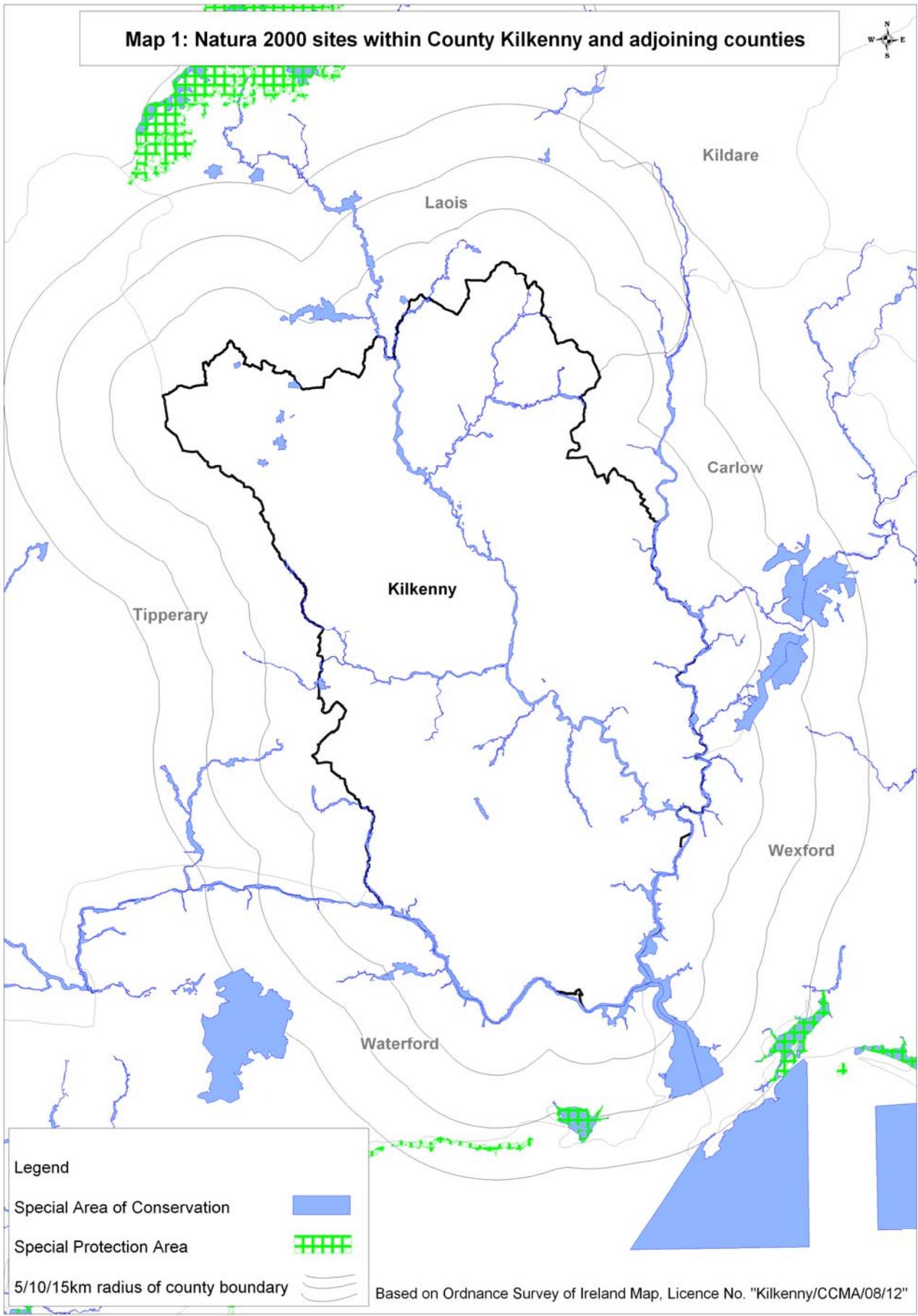
Table 2: Natura 2000 sites in County Kilkenny & adjoining counties

Site Name	SAC Site Code	SPA Site Code	Sites within 5/10/15km of Kilkenny county boundary		
Cullahill Mountain	000831	-----			
Hugginstown Fen	000404	-----			
Galmoy Fen	001858	-----			
Spa Hill & Clomangtah Hill	000849	-----			
The Loughans	000407	-----			
Thomastown Quarry	002252	-----			
Lower River Suir	002137	-----			
River Barrow & Nore	002162	-----			
River Nore*	002162	0004233			
<b>Adjacent Counties:</b>			<b>5km</b>	<b>10km</b>	<b>15km</b>
Ballyprior Grassland	002256	-----	x	x	√
Blackstairs Mountain	000770	-----	√	√	√
Comeragh Mountains	001952	-----	x	x	√
Tramore Dunes and Backstrand	000671	004027	x	√	√
Bannow Bay	000697	004033	x	x	√
Slaney River Valley	000781	-----	x	√	√
Mid-Waterford Coast SPA	-----	004193	x	x	√

Set out in the following pages is a brief description of the Natura 2000 sites both within County Kilkenny and within 15km of the county border. The information is taken from the NPWS Protected Site Synopses available on <http://www.npws.ie/en/ProtectedSites/>.

Tables 2 and 3, in section 3 set out the qualifying interests, conservation objectives and threats to the integrity of Natura 2000 sites within County Kilkenny and within 15km of the county border.

\* Note The River Nore SPA is intended to be advertised as a proposed SPA by the NPWS; however at the date of writing this report it was not available, and could not be illustrated on the maps associated with this report.



## 2.3 Brief Description of the Natura 2000 sites

### 2.3.1 Sites within County Kilkenny

- Culahill Mountain cSAC (000831)

This site lies on a western outlier of the Castlecomer plateau, 6 km north-east of Johnstown, where the underlying limestone has been exposed relatively recently by erosion of the higher shales. The rock is in the form of an escarpment with a steep side facing the central plain (and the Cork-Dublin road) and more gradual slopes to the south-east where the shale soon appears.

The vegetation of most of the site comprises a herb-rich grassland over limestone, in which no one species predominates. Green-winged Orchid is a rare species that is legally protected under the Flora Protection Order (1987) and the site is particularly notable for the abundance of this species.

On its west side, the site extends downslope to some Ash woodland which is regenerating well and spreading on the hill. Some of the trees grow out of moss-covered rocks and though the ground flora is as yet fairly sparse most of the expected species occur somewhere within the wood. Woodland on limestone is quite rare in the Midlands and is distinct from adjacent

Hazel stands on shale, such as at Spahill. The importance of the site lies in the presence of the large population of Greenwinged Orchid in grassland referable to a type listed, with priority status, on Annex I of the EU Habitats Directive.

- Hugginstown Fen cSAC (000404)

Hugginstown Fen is situated approximately 4 km south-west of Ballyhale, Co. Kilkenny. The site consists of a relatively large, isolated area of swamp and floating fen developed in a small valley in hilly country. It is underlain by limestone glacial till overlying and surrounded by acid Old Red Sandstone. The catchment is relatively small and iron-rich springs are an important source of water for the wetland.

The site is a candidate Special Area of Conservation selected for alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive. The northern third of the fen is dominated by Common swamps with some small areas of open water near springs. The remainder of the site consists of species-rich fen, partly developed on mats of floating vegetation, dominated by a tall herb community. Species-rich Rush/Purple Moor-grass grassland occurs in drained areas at the southern and northern end and around the margins at the peat-mineral interface. Small clumps of Willow occur occasionally on the fen margin. An interesting feature of this area is that the water flows overground initially then disappears abruptly underneath the floating fen vegetation.

Although this site has been damaged to some extent by drainage, especially in the southern part, it contains an important example of an alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive and remains one of the most interesting and diverse fen sites in Ireland.

- Galmoy Fen cSAC (001858)

Galmoy Fen is situated 7 km north of Johnstown in Co. Kilkenny, close to the boundary with Co. Laois. It comprises a cutover raised bog that has become flooded with base-rich groundwater and that now supports alkaline fen vegetation. It lies in a depression and is underlain by Carboniferous limestone.

This site is a candidate SAC selected for alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive. The central part of the site comprises an area of cutover raised bog with numerous peat-cuttings, resulting in a mosaic of dry peat banks and wet peaty pools.

The site supports a rich assemblage of invertebrates associated with fen and bog habitats. Irish Hare and Common Frog, both Red Data Book species, also occur.

Parts of the site are grazed by cattle and the whole area is used for shooting.

Galmoy Fen is of considerable conservation significance as it comprises a good quality example of alkaline fen, a habitat that is listed on Annex I of the E.U. Habitats Directive.

- Spahill and Clomantagh Hill cSAC (000849)

Spahill and the adjacent hills form part of an escarpment which links the Slieve Ardagh Hills with the Castlecomer Plateau. The hills are of limestone overlain by shales and/or sandstones so the surface geology is variable, with each rock type maintaining a very different type of vegetation. This particular site is mostly limestone, exposed as small ledges or as flat sheets when it is weathered into the pavement pattern so well known from the Burren. The hills are low and rounded. They rise relatively steeply from the Central Plain and drop south-eastwards more gently. Their surface is grassy in appearance but the soil is shallow especially on the upper parts and the rock breaks through frequently.

A rather different heathy grassland is found on particularly thin soils on the eastern slope of Spahill. The ground in Clomantagh is largely similar to Spahill except that near the top there are outliers of the overlying sandstone which appear as low, lumpy rocks quite different in shape to the limestone.

The site contains a variety of natural grassland communities that are rare in Ireland because of agricultural intensification. Taken with Cullahill Mountain to the north-east it forms a unit of high ecological interest. The presence of a population of Green-winged Orchid in grassland referable to a type listed, with priority status, on Annex I of the EU Habitats Directive is notable.

- The Loughans cSAC (000407)

The Loughans is a turlough situated in flat land about 3km east of Urlingford, below the Slieve Ardagh Hills, in County Kilkenny. The basin is slightly undulating, with banks and hummocks of glacial drift around which the water rises. It has a level floor for the most part, but swallowholes and subsidence hollows are present. The turlough floods regularly, despite some drainage. In summer, it retains a permanent central pond and there are several subsidiary wet hollows at the eastern end.

To the north, there is a gradation into drier, lime-rich grassland where another recognisable and characteristic grassland community occurs, adding habitat diversity to the site.

The Loughans is the only large turlough in the south-east of the country, and the highest anywhere in Ireland. It has limited physical variation but, for its size, a fairly diverse vegetation, including open water, ditches, extensive damp areas and a good transition to the high quality lime rich grassland areas.

- Thomastown Quarry cSAC (002252)

Thomastown Quarry is situated along the R700 road about 1 km north of Thomastown, Co. Kilkenny. It comprises a disused limestone quarry in which an excellent diversity of calcareous habitat types has developed. The site is a candidate SAC selected for petrifying springs, a habitat listed on Annex I of the E.U. Habitats Directive.

Bare rock accounts for a significant area of the site, occurring both on cliff faces and the quarry floor. These rocky surfaces are well covered with lichens and mosses.

Seepage lines or springs are a feature of the site and of particular importance is the presence of petrifying springs with tufa formations.

Alkaline fen vegetation has developed over some of the seepage areas and also around the various ponds that occur on the quarry floor. The fen vegetation is quite species rich. The ponds support populations of the Common Frog and Common Newt, both legally protected species. Despite its small size, this site has an excellent diversity of calcareous habitats, including petrifying springs, a habitat with priority status on Annex I of the E.U. Habitats Directive.

- Lower River Suir cSAC (002137)

This site consists of the freshwater stretches of the River Suir immediately south of Thurles, the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford and many tributaries that flow through counties Tipperary, Kilkenny and Waterford.

The site is a candidate SAC selected for the following habitats and species listed in the E.U. Habitats Directive - (a) priority habitats on Annex I - alluvial wet woodlands and Yew Wood, (b) habitats listed on Annex I - floating river vegetation, Atlantic salt meadows, Mediterranean salt meadows, old oak woodlands and eutrophic tall herbs, and (c) species listed on Annex II - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon and Otter.

Alluvial wet woodland is declining habitat in Europe as a result of drainage and reclamation. The best examples of this type of woodland in the site are found on the islands just below Carrick-on-Suir and at Fiddown Island. Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the flood-plain of the river is intact.

Floating river vegetation is evident in the freshwater stretches of the River Suir and along many of its tributaries. Salt meadows occur below Waterford City in old meadows where the embankment is absent, or has been breached, and along the tidal stretches of some of the in-flowing rivers below Little Island.

The site is of particular conservation interest for the presence of Annex II animal species, including Freshwater Pearl Mussel, Freshwater Crayfish, Salmon, Twaite Shad, three species of Lampreys - Sea Lamprey, Brook Lamprey and River Lamprey and Otter. This is one of only three known spawning grounds in the country for Twaite Shad. The site also supports populations of several other animal species.

Parts of the site have also been identified as of ornithological importance for a number of Annex I (EU Birds Directive) bird species, including Greenland White-fronted Goose, Golden Plover, Whooper Swan and Kingfisher. Wintering populations of migratory birds use the site.

Land-use at the site consists mainly of agricultural activities including grazing, silage production, fertilising and land reclamation. The grassland is intensively managed and the rivers are therefore vulnerable to pollution from run-off of fertilisers and slurry. Arable crops are also grown. Fishing is a main tourist attraction; both commercial and leisure fishing takes place on the rivers. The Aherlow River is a designated Salmonid Water under the EU Freshwater Fish Directive. Other recreational activities such as boating, golfing and walking are also popular. Several industrial developments, which discharge into the river, border the site including three dairy related operations and a tannery.

The Lower River Suir contains excellent examples of a number of Annex I habitats, including the priority habitat Alluvial Forest. The site also supports populations of several Annex II animal species and a number of Red Data Book animal species. The presence of two legally protected plants (Flora (Protection) Order, 1999) and the ornithological importance of the river adds further to the ecological interest of this site.

- River Barrow and River Nore cSAC (002162)

This site consists of the freshwater stretches of the Barrow/Nore River catchments as far upstream as the Slieve Bloom Mountains and 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. Major towns along the edge of the site include Mountmellick, Portarlinton, Monasterevin, Stradbally, Athy, Carlow, Leighlinbridge, Graiguenamanagh, New Ross, Inistioge, Thomastown, Callan, Bennettsbridge, Kilkenny and Durrow.

The site is a candidate SAC selected for the following habitats and species listed on the E.U. Habitats Directive – (a) priority habitats on Annex I - alluvial wet woodlands and petrifying springs, (b) habitats listed on Annex I - old oak woodlands, floating river vegetation, estuary, tidal mudflats, *Salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, and (c) species listed on Annex II – 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.

Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the flood-plain of the river is intact. Floating River Vegetation is well represented in the Barrow and in the many tributaries of the site. Dry Heath at the site occurs in pockets along the steep valley sides of the rivers especially in the Barrow Valley and along the Barrow tributaries where they occur in the foothills of the Blackstairs Mountains.

Dry Heath at the site generally grades into wet woodland or wet swamp vegetation lower down the slopes on the river bank. Saltmeadows occur at the southern section of the site in old meadows where the embankment has been breached, along the tidal stretches of in-flowing rivers below Stokestown House, in a narrow band on the channel side of Common Reed beds and in narrow fragmented strips along the open shoreline. *Salicornia* and other annuals colonising mud and sand are found in the creeks of the saltmarshes and at the seaward edges of them. The estuary and the other Habitats Directive Annex I habitats within it form a large component of the site.

Seventeen Red Data Book plant species have been recorded within the site, most in the recent past. The site is very important for the presence of a number of EU Habitats Directive Annex II animal species including Freshwater Pearl Mussel, Freshwater Crayfish, Salmon, Twaite Shad, three Lamprey species - Sea, Brook and River, the marsh snail *Vertigo moulinsiana* and Otter. This is the only site in the world for the hard water form of the Pearl Mussel *M. m. durrovensis* and one of only a handful of spawning grounds in the country for Twaite Shad. The freshwater stretches of the River Nore main channel is a designated salmonid river. The upper stretches of the Barrow and Nore are very important for spawning. The site is of ornithological importance for a number of E.U. Birds Directive Annex I species including Greenland White-fronted Goose, Whooper Swan, Bewick's Swan, Bartailed Godwit, Peregrine and Kingfisher.

Landuse at the site consists mainly of agricultural activities – many intensive, principally grazing and silage production. Slurry is spread over much of this area. Arable crops are also grown. The spreading of slurry and fertiliser poses a threat to the water quality of the salmonid river and to the populations of Habitats Directive Annex II animal species within the site. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Fishing is a main tourist attraction; both commercial and leisure fishing takes place on the rivers. There is net fishing in the estuary and a mussel bed also. Other recreational activities such as boating, golfing and walking, particularly along the Barrow towpath are also popular. There is a golf course on the banks of the Nore at Mount Juliet and GAA pitches on the

banks at Inistioge and Thomastown. There are active and disused sand and gravel pits throughout the site. Several industrial developments, which discharge into the river, border the site. New Ross is an important shipping port. Shipping to and from Waterford and Belview ports also passes through the estuary. The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, overgrazing within the woodland areas, and invasion by non-native species, for example Cherry Laurel and Rhododendron. The water quality of the site remains vulnerable. Good quality water is necessary to maintain the populations of the Annex II animal species listed above. Good quality is dependent on controlling fertilisation of the grasslands, particularly along the Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

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.

- River Nore proposed SPA (0004233)

The site is selected as proposed for protection for the conservation of the Kingfisher (*Alcedo atthis*), species listed on Annex I of the E.U. Birds Directive – full details not available from the NPWS at time of writing this document.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, and invasion by non-native species. The water quality of the site remains vulnerable. Good quality is dependent on controlling fertilisation of the grasslands, along the Nore. It also requires that sewage be properly treated before discharge.

### **2.3.2 Sites within 15km of the County Kilkenny border**

- Ballyprior Grassland cSAC (002256)

Ballyprior Grassland, 4 km south of the village of Stradbally in Co. Laois, is located at the north end of the Castlecomer Plateau on largely limestone bedrock. The soils of the area are generally thin and well drained, varying from a deeper sandy loam in lower places (10-20 cm depth), to thin or stony soil over local drift (5-10 cm depth) on the elevated plateau.

The site contains orchid-rich calcareous grassland, a priority habitat listed on Annex I of the EU Habitats Directive. The old grassland habitat is of high quality and the site is important due to the loss of similar habitat in surrounding areas. The site has an exceptionally rich mycoflora that is a good indication of grassland quality (in terms of continuity, lack of disturbance and low nutrient status). The Irish Hare occurs in the site. This endemic subspecies is listed in the Red Data Book and is legally protected under the Wildlife Act (1976). Semi-improved grassland has developed from enrichment and fertilizing in the west of the site, with persistent Common Sorrel in places. South of the site, recent afforestation has resulted in loss of contiguous grassland habitat.

- Blackstairs Mountain cSAC (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. Wet heath occurs in mosaic with dry heath towards the base of some of the steeper slopes and is also found outside the western edge of the commonage. A series of lowland bogs north of Mount Leinster and around Black Rock Mountain have recently been identified which have considerable local importance. Mount Leinster is the highest mountain of the range (795 m). The rare, Red Data Book species Bird's Foot is found in dry, sandy places at Knockroe in Co. Carlow. Small numbers of Red Grouse use the site – their numbers have declined here in recent years.

Land-use within the site is centred on grazing. Overall sheep numbers are low. Burning of the Heather is carried out on what appears to be a rotational basis. Heather is regenerating in the burnt areas. Cattle are out-wintered on the slopes just inside the boundary of the commonage. Coniferous forestry is present over much of the slopes of the mountain, extending to a height of 640 m north of Mount Leinster.

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, rivalling some of the larger areas of Heather cover in Co. Wicklow.

- Comeragh Mountains cSAC (001952)

The Comeragh Mountains are situated approximately 11 km south-west of Carrick-on-Suir. They consist of a plateau of Old Red Sandstone whose edges have been deeply scarred by recent glaciation. Corries and deep valleys are cut into the eastern and western sides leaving a central ridge whose width is reduced to 270 m at its narrowest point. The rocks, which are horizontally-bedded, stand out as a series of terraces around these corries, which often house small mountain lakes. The central plateau is at an altitude of about 700 m and supports areas of blanket bog. Eroding channels, hummocks and flats of loose peat are also present. Heath vegetation grows on the well-drained rock debris of slopes and moraines, but also secondarily on eroded areas.

Peregrine, a species listed on Annex I of the EU Birds Directive, breeds within the site, as does Raven. Hen Harrier, also listed on this annex, is found on the site as is Irish Hare, a Red Data Book species. The integrity of the remaining areas of blanket bog and the general habitat diversity of the site are under threat from landuse pressures such as grazing, burning, afforestation and leisure activities. This large site has a diverse range of habitats, including blanket bog, heath, upland grassland, scree, exposed rock, lakes and streams. The blanket bog represents the south-eastern extremity of its range in Ireland. There are many corries, most of which have associated oligotrophic lakes.

- Tramore Dunes and Backstrand cSAC (000671)

This composite coastal site lies at the head of Tramore Bay, east of Tramore, County Waterford. The Tramore dunes (Burrow) are the result of a classic inshore process - the growth of a spit of shingle and sand across a shallow bay. Behind the spit lies the Back Strand which dries out at low tide and is connected to the open sea by narrows at Rinneshark. The Burrow has a narrow neck and expands eastwards. Longshore drift is from the west so any loose material accumulates at the tip, which is hooked, and on the opposing spit at Bass Point. The dunes here are well-developed and contain several habitats listed on Annex I of the EU Habitats Directive, including the priority habitat fixed dune. There are high ridges and valleys, old stabilised surfaces and new foredunes at shore level. Consequently all the major vegetation types are found from the strand flora, through mobile embryonic and marram dunes to stable fixed dunes, with saltmarsh on the northern fringe and slacks at Bass Point. The flora of the fixed dunes is not as species-rich as at other systems, due mainly to the absence of grazing. This has led to the development of a tall, rank dune grassland and in places the development of dune scrub.

Salt marsh, another habitat on Annex I of the EU Habitats Directive, is well developed and fairly extensive in the sheltered inner part of the site. It is the lagoon type of salt marsh, which is the rarest type in Ireland. The communities found are characteristic of both Atlantic and Mediterranean salt marshes.

The intertidal mud flats and sand flats are another important habitat listed on Annex I of the EU Habitats Directive. The Back Strand is an area of great importance for waterfowl on the south coast and is a designated SPA. Brent Geese have been recorded during three seasons between 1994/95 and 1996/97 and occur in numbers which are of international significance. Six further species occur in nationally important numbers - Golden Plover, Grey Plover, Dunlin, Sanderling, Black-tailed Godwit and Bar-tailed Godwit. Both Golden Plover and Bar-tailed Godwit are listed on Annex I of the EU Birds Directive.

The main threat to the stability of the dune habitats is from recreational pressures, with heavy usage of the site due to its proximity to Tramore. Already some large blow-outs and areas of bare sand are present. Driftline and shingle vegetation is also under pressure from heavy usage of the beach area. The intertidal and saltmarsh habitats are not under significant threat though possible seepage from the landfill site is a potential threat. Tramore is of major ecological importance for the range of good quality coastal habitats which occur, including fixed dunes, which are listed as a priority habitat on Annex I of the European Habitats Directive. The site has a remarkably rich flora, featuring a number of rare and protected species, and the intertidal area is important for wintering waterfowl.

- Tramore Back Strand SPA (004027)

This site lies a little east of Tramore town in County Waterford. It comprises a medium sized estuary sheltered from the open sea by a long, shingle spit, with high dunes. The area of the SPA, known as the Back Strand, empties almost completely at low tide. It is connected to the outer bay and sea by narrows at Rinneshark. The intertidal mud flats and sand flats are an important habitat and are listed on Annex I of the E.U. Habitats Directive. The macrofauna is well developed. Salt marsh, another habitat on Annex I of the E.U. Habitats Directive, is well developed and fairly extensive in the sheltered inner part of the site. It is the lagoon type of salt marsh, the rarest type in Ireland. The communities found are characteristic of both Atlantic and Mediterranean salt marshes.

The Back Strand is an important site for wintering waterfowl, providing both feeding and roosting areas. Of particular importance is that the site supports an Internationally Important population of Brent Geese. A further seven species occur in Nationally Important numbers - Golden Plover, Grey Plover, Lapwing, Dunlin, Sanderling, Black-tailed Godwit and Bar-tailed Godwit. A range of other species also occur in significant numbers, including Wigeon, Teal, Red-breasted Merganser, Oystercatcher, Ringed Plover, Knot, Snipe, Curlew, Redshank, Greenshank and Turnstone. In recent times Little Egret has become a regular visitor. The regular occurrence of Little Egret, Golden Plover and Bar-tailed Godwit is of particular note as these are listed on Annex I of the E.U. Birds Directive. A potential threat to the intertidal habitat is seepage of leachate from a landfill site adjacent to the estuary. Tramore Back Strand SPA is of high ornithological importance for wintering waterfowl, with one species having a population of International Importance and a further seven species having populations of National Importance. In addition, three of the species are listed on Annex I of the E.U. Birds Directive i.e. Golden Plover, Bartailed Godwit and Little Egret.

- Bannow Bay cSAC (000697)

Bannow Bay is a relatively large estuarine site, approximately 14 km long, on the south coast of Co. Wexford. Small rivers and streams to the north and south-west flow into the bay and their sub-estuaries form part of the site. The bay contains large areas of mud and sand and the underlying geology is mainly of Ordovician slates. Eleven coastal habitats listed on Annex I of the E.U. Habitats Directive occur within the site. The estuary, including the saltmarshes, makes up approximately 83% of the site. At low tide up to 75% of the substrate is exposed. There are mud flats in the narrow northern part and also in the south-west and south-east. Salt marshes of exceptional species diversity and rarity are found above the sand and mudflats, particularly at the south of the site. Narrow shingle beaches up to 30 m wide occur in places along the edge of the estuary. The fringing reed communities are mainly confined to the tributaries and are relatively small in extent. The dominant type of saltmarsh present is Atlantic salt meadow although the Mediterranean type is also present; both of these habitats are listed on Annex I of the E.U. Habitats Directive. Halophilous scrub, another Annex I habitat, occurs in four of the larger saltmarsh areas. It is characterised by the presence of the legally protected plant Perennial Glasswort which occurs in only a few sites in the country. A mosaic of sand dune habitats which are listed on Annex I of the E.U. Habitats Directive occur in three areas at the edge of the estuary. The priority habitat fixed grey dunes is also present. Most of the estuary has been designated a Special Protection Area (SPA) under the E.U. Birds Directive, because of its significant bird interest, particularly during the winter. Parts of this area have also been designated a Wildfowl Sanctuary. There are large numbers of wintering wildfowl and waders who feed on the mudflats and sandflats and use the fringing vegetation of reedbed and saltmarsh for roosting and feeding. Populations present include internationally important numbers of Light-bellied Brent Goose, and nationally important numbers of Shelduck, Pintail, Golden Plover, a species listed on Annex I of the E.U. Birds Directive, Lapwing, Knot, Dunlin, Blacktailed Godwit, Bar-tailed Godwit and Redshank. Important breeding populations found within the site include two species listed on Annex I of the E.U. Birds Directive (Little Tern and Kingfisher). The rare Reed Warbler may also breed in the area. Otter and Common Seal occur within the site.

Landuse at the site consists mainly of shellfish farming; approximately 20 ha of the intertidal area is under cultivation. There is evidence of poor farm management in some locations - numerous abandoned trestles in the intertidal zone and along the top of the shore. Grading equipment is permanently left on the shore and some areas of saltmarsh are being used as a grading area for Oysters. In some areas damage is caused to the shingle vegetation and to the substrate by tractors accessing the aquaculture farms. Any further increase in aquaculture poses a threat. Other landuses include shooting, bird watching, conservation management, grazing in some of the dune areas, horse-riding on the beach and Big Burrow sand dunes, picnicing, swimming, sailboarding, jet-skiing, line fishing and bait digging. The removal of sand and beach material also occurs at the site.

- Bannow Bay SPA (004033)

Situated on the south coast of Co. Wexford, Bannow Bay is a large, very sheltered, estuarine system with a narrow outlet to the sea. It is up to 14 km along its northeast/ south-west axis and has an average width of about 2 km. A number of small- to medium-sized rivers flow into the site. Very extensive intertidal mud and sand flats are exposed at low tide. The sediments have a rich macroinvertebrate fauna

Bannow Bay supports an excellent diversity of wintering waterfowl and is one of the most important sites in the south-east. Of particular note is an internationally important population of Brent Goose. The site also supports nationally important numbers of a further twelve species as follows - Shelduck, Pintail, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew and Redshank. The populations of Shelduck and Black-tailed Godwit are of particular note as they comprise 3.4% and 2.0% of the respective national totals. Other species which occur in numbers of regional importance include Wigeon, Teal, Ringed Plover and Turnstone. The intertidal sand and mud flats provide excellent feeding for the waterfowl species, while suitable high tide roosts are provided by the salt marshes and other shoreline habitats. Part of the site is a Wildfowl Sanctuary. There are no serious imminent threats to the wintering birds. However, shellfish farming is carried out over much of the intertidal areas and may cause disturbance to birds and/or their habitats.

Bannow Bay SPA provides an excellent example of an enclosed estuarine system, with habitats generally of good quality. It is of international importance for Brent Geese and supports a further twelve species in numbers of national importance. Of particular significance is that two species, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive.

- Slaney River Valley cSAC (000781)

This site comprises the freshwater stretches of the Slaney as far as the Wicklow Mountains. The site flows through the counties of Wicklow, Wexford and Carlow. The river is up to 100 m wide in places and is tidal at the southern end.

The site is a candidate SAC selected for habitats and species listed in the E.U. Habitats Directive – (a) priority habitat on Annex I - alluvial wet woodlands, (b) habitats listed on Annex I - floating river vegetation, estuaries, tidal mudflats and old oak woodlands, and (c) species listed on Annex II - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Otter.

Floating river vegetation is found along much of the freshwater stretches within the site. Two rare aquatic plant species have been recorded in this site: Short-leaved Water-starwort, a very rare, small aquatic herb found nowhere else in Ireland; and Opposite-leaved Pondweed, a species that is legally protected under the Flora Protection Order, 1999. Good examples of wet woodland are found associated with Macmine marshes, along banks of the Slaney and its tributaries and within reed swamps.

The site also contains the Red Data Book species Yellow Archangel. Three more Red Data Book species have also been recorded from the site - Basil Thyme, Blue Fleabane and Small Cudweed. A nationally rare species Summer Snowflake is also found within the site.

The site is considered to contain a very good example of the extreme upper reaches of an estuary. Tidal reedbeds with wet woodland are present in places. Wexford Harbour is an extensive, shallow estuary which dries out considerably at low tide exposing large expanses of mudflats and sandflats. Extensive marshes occur to the west of Castlebridge associated with the tidal areas of the River Sow. The site supports populations of several species listed on Annex II of the EU Habitats Directive including the three Lampreys - Sea Lamprey, River Lamprey and Brook Lamprey, Otter, Salmon, small numbers of Freshwater Pearl Mussel and in the tidal stretches, Twaite Shad. The Slaney is primarily a spring salmon fishery and is regarded as one of the top rivers in Ireland for early spring fishing. The upper Slaney and tributary headwaters are very important for spawning.

The site supports important numbers of birds in winter. Nationally important numbers of Black-tailed Godwit, Teal, Tufted Duck, Mute Swan, Little Grebe and Black-headed Gull are found along the estuarine stretch of the river. Wexford Harbour provides extensive feeding grounds for wading birds and Little Terns, which are listed on Annex I of the E.U. Birds Directive have bred here in the past. The Reed Warbler, which is a scarce breeding species in Ireland, is regularly found in Macmine Marshes but it is not known whether or not it breeds in the site. The Dipper also occurs on the river. This is a declining species nationally. The site supports many of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger, Irish Hare and Daubenton's Bat. Common Frog, another Red Data Book species, also occurs within the site.

Agriculture is the main landuse. Arable crops are important. Improved grassland and silage account for much of the remainder. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the populations of Annex II animal species within it. Run-off is undoubtedly occurring, as some of the fields slope steeply directly to the river bank.

In addition, cattle have access to the site in places. Fishing is a main tourist attraction; both commercial and leisure fishing takes place. There are some gravel pits along the river below Bunclody and many of these are active. There is a large landfill site adjacent to the river close to Hacketstown and at Killurin. Boating, bait-digging and fishing occur in parts of Wexford Harbour. Waste water outflows, runoff from intensive agricultural enterprises, a meat factory at Clohamon and a landfill site adjacent to the river and further industrial development upstream in Enniscorthy and in other towns could all have potential adverse impacts on the water quality unless they are carefully managed. The spread of exotic species is reducing the quality of the woodlands.

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.

- Mid-Waterford Coast SPA (004193)

The Mid-Waterford Coast SPA encompasses the areas of high coast and sea cliffs in Co. Waterford between Newtown Cove to the east and Ballyvoyle to the west. The site includes the sea cliffs and the land adjacent to the cliff edge (inland for 300 m). The high water mark forms the seaward boundary. The site is underlain by Devonian sandstones, siltstones, mudstones and conglomerates as well as a variety of volcanic rocks of Ordovician age.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough, Peregrine, Cormorant and Herring Gull. Sea cliffs are the predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliff species. Above the cliffs areas of heath, improved grassland, unimproved wet and dry grassland, and woodland occur. The site supports an important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive.

Landuse at the site is predominantly grazing by stock, but some arable farming is also carried out. The grazing regime, which results in a tight vegetation sward, is beneficial to Chough. Areas of semi-natural habitats occur in many places adjacent to the breeding cliffs, interspersed between other areas of relatively intensive grass production. The habitats present are quite robust, and there are few noticeable activities negatively impacting on the Chough population. However, changes in landuse, particularly a reduction in grazing levels, could pose a threat to the species. One other potential threat is the residue left in livestock dung due to the application of broad-spectrum anti-parasitic drugs.

The site supports an important Peregrine population; this species is listed on Annex I of the E.U. Birds Directive. The site also holds nationally important populations of Cormorant and Herring Gull, as well as smaller populations of other breeding seabirds - Fulmar, Shag, Guillemot, Razorbill and Black Guillemot.

The Mid-Waterford Coast SPA is an important site for Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. It also supports a range of breeding seabirds, including populations of Cormorant and Herring Gull of national importance.

### Section 3

This section sets out in table form the Natura 2000 sites, firstly within County Kilkenny and secondly within 15km of the county, together with their qualifying interest, the conservation objectives of the site, and threats to the site integrity based on their qualifying interests.

**3.1 Table 3: Natura 2000 sites within County Kilkenny**

<b>County Kilkenny</b>		<b>Special Areas of Conservation</b>	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
000831 Cullahill Mountain	Priority status - Listed in Annex I of HD <ul style="list-style-type: none"> <li>▪ Semi-natural dry grasslands and scrubland facies on substrates (Festuco Brometalia)(*important orchid sites) (6210)</li> </ul>	<ul style="list-style-type: none"> <li>▪ To maintain and enhance the quality of the orchid-rich calcareous grassland (72%).</li> <li>▪ To maintain the quality of other habitats present i.e. dry deciduous woodland (8%), scrub (15%) and rock outcrops (5%).</li> <li>▪ To maintain and possibly increase the populations of rare and important species present i.e. Green-winged, Frog and Bee Orchids.</li> <li>▪ To continue effective liaison between the NPW, the landowner and other interested parties, so as to conserve the cSAC.</li> </ul>	Abandonment of traditional agricultural practices or land reclamation. Intensive or very low grazing levels. The use of artificial fertiliser.
000404 Hugginstown Fen	Listed in Annex I of HD <ul style="list-style-type: none"> <li>▪ Alkaline fens (7230)</li> </ul>	Generic Conservation Objective: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status – Alkaline Fens.	Draining for cropland Infilling Fertiliser pollution Eutrophication
001858 Galmoy Fen	Listed in Annex I of HD <ul style="list-style-type: none"> <li>▪ Alkaline fens (7230)</li> </ul>	Generic Conservation Objective: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status – Alkaline Fens.	Peat mining Draining for cropland Infilling Fertiliser pollution Eutrophication

<b>County Kilkenny</b>		<b>Special Areas of Conservation</b>	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
000849 Spa Hill & Clomangtah Hill	Priority status - Listed in Annex I of HD <ul style="list-style-type: none"> <li>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites) (6210)</li> </ul>	Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected.	Abandonment of traditional agricultural practices or land reclamation. Intensive or very low grazing levels. The use of artificial fertiliser.
000407 The Loughans	Priority status - Listed in Annex I of HD <ul style="list-style-type: none"> <li>Turloughs (3180)</li> </ul>	Generic Conservation Objective: To maintain or restore the Annex I habitats for which the cSAC has been selected - Turlough.	Nutrient enrichment Inappropriate grazing regimes
002252 Thomastown Quarry	Priority status - Listed in Annex I of HD <ul style="list-style-type: none"> <li>Petrifying springs with tufa formation (Cratoneurion) (7220)</li> </ul>	Generic Conservation Objective: To maintain or restore the Annex I habitats for which the cSAC has been selected at favourable conservation status.	Land reclamation Drainage Abandonment

County Kilkenny		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
002137  Lower River Suir	<p>Priority status - Listed in Annex I of HD:</p> <ul style="list-style-type: none"> <li>▪ Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) (91E0)</li> <li>▪ Yew Woodlands - <i>Taxus baccata</i> woods of the British Isles (91J0)</li> </ul> <p>Listed in Annex I of HD:</p> <ul style="list-style-type: none"> <li>▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) (1330)</li> <li>▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) (1410)</li> <li>▪ Floating river vegetation - water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260)</li> <li>▪ Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles (91A0)</li> <li>▪ Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430)</li> </ul> <p>Listed on Annex II of HD:</p> <ul style="list-style-type: none"> <li>▪ Sea Lamprey (<i>Petromyzon marinus</i> - 1095)</li> <li>▪ River Lamprey (<i>Lampetra fluviatilis</i> - 1099)</li> <li>▪ Brook Lamprey (<i>Lampetra planeri</i>- 1096)</li> <li>▪ Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i> - 1029)</li> <li>▪ Crayfish (<i>Austropotamobius pallipes</i> - 1092)</li> <li>▪ Twaitte Shad (<i>Alosa fallax</i> - 1103)</li> <li>▪ Atlantic Salmon (<i>Salmo salar</i>- 1106)</li> <li>▪ Otter (<i>Lutra lutra</i> - 1355)</li> </ul>	<p>Generic Conservation Objective: To maintain the Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status.</p>	<ul style="list-style-type: none"> <li>▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage.</li> <li>▪ Restricted distribution and lack of suitable habitats for expansion, Invasive aliens.</li> <li>▪ Overgrazing by sheep or cattle, and erosion. Presence of common cordgrass invasive species. Loss of habitats due to infilling and reclamation.</li> <li>▪ Over-grazing by cattle or sheep</li> <li>▪ Infilling and reclamation.</li> <li>▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species.</li> <li>▪ Invasive alien species, sub-optimal grazing.</li> <li>▪ Spread of invasive species, arterial drainage and agricultural improvement at the river edge.</li> <li>▪ Restricted access to spawning grounds due to weirs.</li> <li>▪ Channel maintenance removing silt deposits and gravel shoals.</li> <li>▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.</li> <li>▪ Introduction of diseases transmitted by introduced American crayfish.</li> <li>▪ Restricted access to spawning grounds due to weirs.</li> <li>▪ Diseases, parasites, water pollution.</li> <li>▪ Road kill, fishing nets and lobster pots.</li> </ul>

County Kilkenny		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
002162  River Barrow and River Nore cSAC	<p>Annex I - priority habitat</p> <ul style="list-style-type: none"> <li>▪ Alluvial wet woodlands - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) (91E0)</li> <li>▪ Petrifying springs - Petrifying springs with tufa formation (<i>Cratoneurion</i>) (7220)</li> </ul> <p>Annex I</p> <ul style="list-style-type: none"> <li>▪ Old oak woodlands - Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles (91A0)</li> <li>▪ Floating river vegetation - Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260)</li> <li>▪ Estuary – (1130)</li> <li>▪ Tidal mudflats - <i>Spartina</i> swards (<i>Spartinion maritimae</i>) (1320)</li> <li>▪ <i>Salicornia</i> mudflats - <i>Salicornia</i> and other annuals colonizing mud and sand (1310)</li> <li>▪ Atlantic salt meadows - (<i>Glauco-Puccinellietalia maritimae</i>) (1330)</li> <li>▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) (1410)</li> <li>▪ Dry heath - European dry heaths (4030)</li> <li>▪ Eutrophic tall herbs - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430)</li> </ul> <p>Annex II</p> <ul style="list-style-type: none"> <li>▪ Sea Lamprey - <i>Petromyzon marinus</i> (1095)</li> <li>▪ River Lamprey - <i>Lampetra fluviatilis</i> (1099)</li> <li>▪ Brook Lamprey – <i>Lampetra planeri</i> (1096)</li> <li>▪ Freshwater Pearl Mussel – <i>Margaritifera margaritifera</i> (1029)</li> <li>▪ Nore Freshwater Pearl Mussel – (<i>Margaritifera durrovensis</i>) (1990)</li> <li>▪ Crayfish – <i>Austroptamobius pallipes</i> (1092)</li> </ul>	<p>Generic Conservation Objective: To maintain the Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status.</p>	<ul style="list-style-type: none"> <li>▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage.</li> <li>▪ Land reclamation, drainage.</li> <li>▪ Invasive alien species, sub-optimal grazing.</li> <li>▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species.</li> <li>▪ Aquaculture, fishing, coastal development and water pollution.</li> <li>▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species. Hard coastal defence structures, sea-level rise.</li> <li>▪ Invasive species, natural erosion, accretion cycles and storms.</li> <li>▪ Overgrazing by sheep or cattle, and erosion. Presence of common cordgrass invasive species. Loss of habitats due to infilling and reclamation.</li> <li>▪ Over-grazing by cattle or sheep</li> <li>▪ Infilling and reclamation.</li> <li>▪ Afforestation, over-burning, over-grazing, under-grazing and bracken invasion.</li> <li>▪ Invasive species, arterial drainage and agricultural improvement at the river edge.</li> <li>▪ Weirs restricting access to spawning beds. Channel maintenance which removes silt deposits and gravel shoals used by lampreys.</li> <li>▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.</li> </ul>

<p>continued . . .</p> <p>002162</p> <p>River Barrow and River Nore cSAC</p>	<ul style="list-style-type: none"> <li>▪ Twaité Shad – <i>Alosa fallax</i> (1103)</li> <li>▪ Atlantic Salmon – <i>Salmo salar</i> (1106)</li> <li>▪ Otter – <i>Lutra lutra</i> (1355)</li> <li>▪ Desmoulin’s Whorl Snail - <i>Vertigo moulinsiana</i> (1016)</li> <li>▪ Killarney Fern – <i>Trichomanes speciosum</i> (1421)</li> </ul>		<ul style="list-style-type: none"> <li>▪ Poor quality of river substrate.</li> <li>▪ Introduction of diseases transmitted by introduced American crayfish.</li> <li>▪ Restricted access to spawning grounds due to weirs.</li> <li>▪ Diseases, parasites, water pollution.</li> <li>▪ Road kill, fishing nets and lobster pots.</li> <li>▪ Drainage of wetlands and riparian management, spread of urban development.</li> <li>▪ Modifications to the site’s hydrology, through pollution, or woodland clearance.</li> </ul>
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Note: Proposed SPA – full details not available from NPWS at time of writing this report

		<b>Special Protection Area</b>	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
<p>River Nore</p> <p>0004233 - proposed SPA</p>	<ul style="list-style-type: none"> <li>▪ Kingfisher (<i>Alcedo atthis</i>)</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p>	<ul style="list-style-type: none"> <li>▪ Disturbance, Water Quality, Invasive Species.</li> </ul>

3.2 Table 4 : Natura 2000 sites adjacent to County Kilkenny

Adjacent Counties		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Ballyprior Grassland 002256 - SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)[6210]  Priority status - Listed in Annex I of HD	Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat and / or Annex II species for which the SAC has been selected.	<ul style="list-style-type: none"> <li>▪ Abandonment of traditional agricultural practices or land reclamation.</li> <li>▪ Intensive or very low grazing levels. The use of artificial fertiliser.</li> </ul>
Blackstairs Mountain 000770 - SAC	<ul style="list-style-type: none"> <li>▪ European dry heath (4030)</li> <li>▪ Northern Atlantic wet heath with <i>Erica tetralix</i>' (4010).</li> </ul> <p>Listed in Annex I of HD</p>	<p>To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status; European dry heaths (all sub-types) (84% area of the site in mosaic with Dry Grassland and Exposed Rock) and North Atlantic Wet Heaths with <i>Erica tetralix</i> (1% area of the site).</p> <ul style="list-style-type: none"> <li>• To maintain the extent, biodiversity and species richness of the site.</li> <li>• To establish effective liaison and co-operation with landowners, legal users and relevant authorities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ All terrain vehicles (ATVs)</li> <li>▪ Burning</li> <li>▪ Decline of the Red Grouse Population</li> <li>▪ Grazing</li> <li>▪ Erosion</li> <li>▪ Group water schemes</li> </ul>

<b>Adjacent Counties</b>	<b>Special Areas of Conservation</b>		
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Comeragh Mountains  001952 - SAC	<p>Listed in Annex I of HD</p> <ul style="list-style-type: none"> <li>▪ Upland oligotrophic lakes - Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea [3130]</li> <li>▪ Floating river vegetation - Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]</li> <li>▪ Northern Atlantic wet heaths with Erica tetralix [4010]</li> <li>▪ European dry heaths [4030]</li> <li>▪ Alpine and Boreal heaths [4060]</li> <li>▪ Calcareous rocky slopes with chasmophytic vegetation [8210]</li> <li>▪ Siliceous rocky slopes with chasmophytic vegetation [8220]</li> </ul> <p>Listed in Annex II of HD</p> <ul style="list-style-type: none"> <li>▪ Slender Green Feather Moss - Drepanocladus (Hamatocaulis) vernicosus [1393]</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat and / or Annex II species for which the SAC has been selected.</p>	<ul style="list-style-type: none"> <li>▪ Eutrophication and species competition</li> <li>▪ Eutrophication arising from agricultural practices such as overgrazing and excessive fertilization, afforestation and introduction of invasive alien species.</li> <li>▪ Eutrophication, overgrazing, excessive fertilisation, afforestation and the introduction of invasive alien species.</li> <li>▪ Reclamation, afforestation and burning. Overstocking through overgrazing and trampling allowing invasion by non-heath species, or exposure of peat to severe erosion.</li> </ul>

Adjacent Counties		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Tramore Dunes and Backstrand  000671 - SAC	<p>Listed in Annex I of HD – priority habitat</p> <ul style="list-style-type: none"> <li>▪ Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130]</li> </ul> <p>Listed in Annex I of HD</p> <ul style="list-style-type: none"> <li>▪ Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>▪ Annual vegetation of drift lines [1210]</li> <li>▪ Perennial vegetation of stony banks [1220]</li> <li>▪ Salicornia and other annuals colonizing mud and sand [1310]</li> <li>▪ Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330]</li> <li>▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>▪ Embryonic shifting dunes [2110]</li> <li>▪ Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120]</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat and / or Annex II species for which the SAC has been selected.</p>	<p>Threats to site integrity</p> <ul style="list-style-type: none"> <li>▪ Threats from development and recreation - such as sports pitches, golf courses, caravan parks, coniferous plantations, housing, roadways and airstrips. Pedestrian and vegetation cover leading to exposure of bare sand, which becomes mobile. Overgrazing and under-grazing. Introduction of non-native species.</li> <li>▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works, invasive species and hard coastal defence structures.</li> <li>▪ Recreational uses, including trampling horse riding, vehicles use and mechanized removal of tidal litter. Grazing, sand and gravel extraction, removal of beach material and sea defence and coastal protection works.</li> <li>▪ Disruption of sediment supply, owing to the interruption of coastal processes, caused by development such as car parks and coastal defence structures such as rock armour and sea wall. Removal of gravel. Damage from trampling, horse riding and vehicles.</li> <li>▪ Infilling, reclamation and embankment for agricultural purposes. Invasive species. Natural erosion, accretion cycles and storms.</li> <li>▪ Overgrazing and erosion. Invasive species. Infilling and reclamation.</li> <li>▪ Overgrazing, infilling and reclamation.</li> <li>▪ Stabilisation, recreation.</li> <li>▪ Removal of beach material, construction of coastal protection works by sand compaction caused by motorised vehicles. High visitor pressure causing trampling.</li> </ul>

Adjacent Counties		Special Protection Area	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Tramore Dunes and Backstrand  004027 - SPA	<ul style="list-style-type: none"> <li>▪ Brent Geese - <i>Branta bernicla hrota</i> [wintering]</li> <li>▪ Golden Plover - <i>Pluvialis apricaria</i> [wintering]</li> <li>▪ Grey Plover - <i>Pluvialis squatarola</i> [wintering]</li> <li>▪ Lapwing - <i>Vanellus vanellus</i> [wintering]</li> <li>▪ Dunlin - <i>Calidris alpina</i> [wintering]</li> <li>▪ Black-tailed Godwit - <i>Limosa limosa</i> [wintering]</li> <li>▪ Bar-tailed Godwit - <i>Limosa lapponica</i> [wintering]</li> <li>▪ Sanderling - <i>Numenius arquata</i> [wintering]</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p>	<ul style="list-style-type: none"> <li>▪ Disturbance, Water Quality, Invasive Species.</li> </ul>
Mid-Waterford Coast  004193 - SPA	<p>Cormorant - <i>Phalacrocorax carbo</i> [breeding]  Peregrine - <i>Falco peregrinus</i> [breeding]  Herring Gull - <i>Larus argentatus</i> [breeding]  Chough - <i>Pyrhocorax pyrrhocorax</i> [breeding]</p>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p>	<p>Development, change in agricultural practices, agricultural abandonment, encroachment of scrub, loss of closes-ward grazing.</p>

Adjacent Counties		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Bannow Bay  000697 - SAC	<p>Listed in Annex I of the HD – priority habitat</p> <ul style="list-style-type: none"> <li>▪ Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130]</li> </ul> <p>Listed in Annex I of the HD</p> <ul style="list-style-type: none"> <li>▪ Estuaries [1130]</li> <li>▪ Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>▪ Annual vegetation of drift lines [1210]</li> <li>▪ Perennial vegetation of stony banks [1220]</li> <li>▪ Salicornia and other annuals colonizing mud and sand [1310]</li> <li>▪ Atlantic salt meadows (<i>Glauco - Puccinellietalia maritimae</i>) [1330]</li> <li>▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>▪ Mediterranean and thermo - Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>) [1420]</li> <li>▪ Embryonic shifting dunes [2110]</li> <li>▪ Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120]*</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and /or the Annex II species for which the SAC has been selected.</p>	<p>Threats to site integrity</p> <ul style="list-style-type: none"> <li>▪ Threats from development and recreation - such as sports pitches, golf courses, caravan parks, coniferous plantations, housing, roadways and airstrips. Pedestrian and vegetation cover leading to exposure of bare sand, which becomes mobile. Overgrazing and under-grazing.</li> <li>▪ Introduction of non-native species</li> <li>▪ Aquaculture, fishing, coastal development and water pollution.</li> <li>▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, hard coastal defence structures.</li> <li>▪ Recreational uses, trampling, horse riding, vehicles use and mechanized removal of tidal litter. Grazing, sand and gravel extraction, removal of beach materials and sea defence or coastal protection works.</li> <li>▪ Interruption of coastal processes, caused by developments such as car parks and coastal defence structures. Removal of gravel, trampling, horse riding and vehicles.</li> <li>▪ Infilling, reclamation, embankment for agricultural purposes. Invasive species, natural erosion, accretion cycles and storms.</li> <li>▪ Over-grazing, erosion, invasive species, infilling and reclamation.</li> <li>▪ Over-grazing, infilling and reclamation.</li> <li>▪ Cattle-poaching and off-road vehicles. Recreation and sand extraction, construction of coastal protection works.</li> <li>▪ Construction of coastal protection works, recreation and sand extraction.</li> <li>▪ Removal of beach materials, construction of coastal protection works, sand compaction caused by motorized vehicles. High visitor pressure.</li> </ul>

Adjacent Counties		Special Protection Area	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Bannow Bay 004033 - SPA	<ul style="list-style-type: none"> <li>▪ Brent goose - <i>Branta bernicla hrota</i> [wintering]</li> <li>▪ Shelduck - <i>Tadorna tadorna</i> [wintering]</li> <li>▪ Pintail - <i>Anas acuta</i> [wintering]</li> <li>▪ Oystercatcher - <i>Haematopus ostralegus</i> [wintering]</li> <li>▪ Golden Plover - <i>Pluvialis apricaria</i> [wintering]</li> <li>▪ Grey Plover - <i>Pluvialis squatarola</i> [wintering]</li> <li>▪ Lapwing - <i>Vanellus vanellus</i> [wintering]</li> <li>▪ Sanderling - <i>Calidris canutus</i> [wintering]</li> <li>▪ Dunlin - <i>Calidris alpina</i> [wintering]</li> <li>▪ Black-tailed Godwit - <i>Limosa limosa</i> [wintering]</li> <li>▪ Bar-tailed Godwit - <i>Limosa lapponica</i> [wintering]</li> <li>▪ Curlew - <i>Numenius arquata</i> [wintering]</li> <li>▪ Redshank - <i>Tringa totanus</i> [wintering]</li> </ul>	<p>Generic Conservation Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p>	Disturbance, Water Quality, Invasive Species.

Adjacent Counties		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Slaney River Valley  000781 - SAC	Annex I - priority habitat <ul style="list-style-type: none"> <li>▪ Alluvial wet woodland - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0]</li> </ul> Annex I <ul style="list-style-type: none"> <li>▪ Estuaries [1130]</li> <li>▪ Floating river vegetation - Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation (3260)</li> <li>▪ Old oak woodlands - Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles (91A0)</li> <li>▪ Mudflats and sandflats not covered by seawater at low tide [1140]</li> </ul> Annex II <ul style="list-style-type: none"> <li>▪ Freshwater Pearl Mussel – <i>Margaritifera margaritifera</i> (1029)</li> <li>▪ Brook Lamprey – <i>Lampetra planeri</i> (1096)</li> <li>▪ River Lamprey - <i>Lampetra fluviatilis</i> (1099)</li> <li>▪ Twaite Shad – <i>Alosa fallax</i> (1103)</li> <li>▪ Atlantic Salmon – <i>Salmo salar</i> (1106)</li> <li>▪ Sea Lamprey - <i>Petromyzon marinus</i> (1095)</li> <li>▪ Otter – <i>Lutra lutra</i> (1355)</li> </ul>	Generic Conservation Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/ or the Annex II species for which the SAC has been selected.	<ul style="list-style-type: none"> <li>▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage.</li> <li>▪ Aquaculture, fishing, coastal development and water pollution.</li> <li>▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species.</li> <li>▪ Invasive alien species, sub-optimal grazing.</li> <li>▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, hard coastal defence structures.</li> <li>▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.</li> <li>▪ Weirs restricting access to spawning beds. Channel maintenance which removes silt deposits and gravel shoals used by lampreys.</li> <li>▪ Invasive species, arterial drainage and agricultural improvement at the river edge.</li> <li>▪ Restricted access to spawning grounds due to weirs.</li> <li>▪ Diseases, parasites, water pollution.</li> <li>▪ Afforestation, over-burning, over-grazing, under-grazing and bracken invasion.</li> <li>▪ Road kill, fishing nets and lobster pots.</li> </ul>

## Section 4

### 4.1 Screening Assessment Criteria - Discussion of Potential Impacts

This section assesses the likelihood of potential impacts on the Natura 2000 sites. The assessment draws upon the information set out in sections 2 and 3, together with the information as set out in the appendices in relation to existing and proposed policies, and waster supply and wastewater treatment capacities.

The format of this section follows the assessment criteria in the screening matrix which is included in the *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, (November 2001)*.

In assessing the likely impacts, changes to the site or interference with the Natura 2000 sites, points (ii) – (iv) inclusive have been combined for the purposes of assessment; the combined approach for these points focus firstly on Natura 2000 sites outside of county Kilkenny, and then focus on sites within the county.

#### Assessment criteria

- (i) Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.
- (ii) Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of: - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other.
- (iii) Describe any likely changes to the site arising as a result of:- reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change.
- (iv) Describe any likely impacts on the Natura 2000 site as a whole in terms of: - interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site.
- (v) Provide indicators of significance as a result of the identification of effects set out above in terms of: loss; fragmentation; disruption; disturbance; change to key elements of the site (e.g. water quality etc.). Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

#### **4.2 Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.**

Draft Variation 2 to the Kilkenny County Development Plan will bring the settlement strategy for the county in line with projections set out in the *Regional Planning Guidelines for the South-East Region 2010-2022*. It will retain the existing plans for Callan, Castlecomer, Thomastown, Graiguenamanagh, and Ferrybank/ Belview; these will be revised at a later date. The zoning for Kilkenny city will also be revised, and a separate appropriate assessment will be carried out for that variation to the City & Environs Development Plan 2008-2014. Local area plans that have been recently completed Piltown, Fiddown and Gowran, will be retained as the implications of the RPG's have been factored into these plans.

Where the local area plan has expired a map will be included in the County Development Plan for a development boundary for these settlements, no zonings will be retained. For the other settlements a substantial area of residential lands will be allocated for phase 2 development, and will not be released for development within the life of the plan.

The draft Variation will form part of the Kilkenny County Development Plan 2008-2014, as such it will influence, and be influenced by the existing policies and strategies of the plan, particularly in relation to the provision of investment programmes of the Council such as water services and roads and also in relation to the assessment of development proposals. It takes into account the Council's *Water Services Investment Programme 2010-2012; Needs Assessment 2009*. The varied development plan for Kilkenny will operate alongside the plans of the surrounding counties and of the south-east region – namely, Carlow, Wexford, Waterford, Tipperary, Laois and Kildare. This screening extends to incorporate Natura 2000 sites within 15km of the county Kilkenny border.

The draft variation is set within the framework of higher level plans including the existing County Development Plan and the National Spatial Strategy, Regional Planning Guidelines and South Eastern River Basin Management Plan 2009-2015. As the draft Variation will facilitate reduced levels of growth than previously envisaged under the Kilkenny County Development Plan 2008-2014, the potential for significant adverse effects on the Natura 2000 sites within or adjoining the county will be reduced. The primary areas for potential significant effects come from possible encroachment on sites of new development or ground water contamination, pollution from inadequately treated waste from treatment plants or ground water abstractions affecting water-dependent sites. Potential threats may occur where there are hydrological connections between proposed developments and a Natura 2000 site.

The policies proposed in the draft Variation, require that the cumulative effects shall be assessed as part of any development proposal; the draft variation includes the following policy:

- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams and drainage ditches).*

The county development plan contains existing policies for the conservation and protection of Natura 2000 sites, and also for the protection of non-designated sites; however the draft Variation proposes additional protection for Natura 2000 sites from potential threats outside of the site's designated boundaries.

#### 4.3 Describe any likely - direct, indirect or secondary impacts of the project; changes to the site; and impacts on the Natura 2000 site

In order to describe the likely direct, indirect or secondary impacts of the project, likely changes to the site or interference with the site, it is proposed to look firstly at impacts on Natura 2000 sites outside of the county and within 15km of the county border, and secondly at impacts on Natura 2000 sites within County Kilkenny. The sites of the River Barrow & River Nore, and the Lower River Suir extend beyond the county borders, but are addressed in the section relating to impacts within the county border as potential impacts from development within the county would be likely to impact firstly on the site within the county, prior to having effects downstream outside of the county.

##### 4.3.1 Natura 2000 sites within 15km of the county border

- Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:
  - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other.
- Describe any likely changes to the site arising as a result of:
  - reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change.
- Describe any likely impacts on the Natura 2000 site as a whole in terms of:
  - interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site.

The table below lists the Natura 2000 sites found within 15km of the county border.

Site Name	SAC Site Code	SPA Site Code	Sites within 5/10/15km of Kilkenny county boundary		
			5km	10km	15km
Ballyprior Grassland	002256	-----	x	x	√
Blackstairs Mountain	000770	-----	√	√	√
Comeragh Mountains	001952	-----	x	x	√
Tramore Dunes and Backstrand	000671	004027	x	√	√
Bannow Bay	000697	004033	x	x	√
Slaney River Valley	000781	-----	x	√	√
Mid-Waterford Coast SPA	-----	004193	x	x	√

The proposed variation relates to reduced potential areas of land for development throughout the county, by incorporating the majority of existing local area plans into the county development plan and changing phasing of significant areas of residential zonings beyond the life of the plan. The potential impacts from the proposed variation are therefore anticipated to be less extensive than the development potential facilitated by the existing local area plans.

The qualifying interests and threats to the site integrity as set out in table 3, together with the description of the site and qualifying interests as set out earlier in this report are referred to in assessing the likely direct, indirect or secondary impacts or likely changes to the sites.

- Ballyprior Grassland SAC (002256)

This site is located at a distance of more than 10km from the county boundary. Identified threats to the site integrity are likely to come from activities in close proximity to the site. It is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives or developments within the county.

- Blackstairs Mountain SAC (000770)

The site is close to the Kilkenny county border, being within 5km of the border. Identified threats to the site's integrity are likely to come from activities which are in close proximity to the site. Given the upland nature and that due to gravity and directional flow that water-bodies are unlikely to be at risk from the proposed variation. Also due to the largely self-contained nature of the site, it is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives or developments within the county.

- Comeragh Mountains SAC (001952)

The site is located more than 10km from the county border. Identified threats are likely to come from activities in close proximity to the site. Eutrophication has been identified as a threat to the site, and whilst there are hydrological links between the site and the River Barrow which flows along the Carlow-Kilkenny county border due to gravity and direction of flow, these are unlikely to be affected by any developments that may be facilitated by the proposed variation or developments within the county.

- Tramore Dunes and Backstrand SAC (000671) & SPA (004027)

The area of the SAC & SPA sites overlap, and are located approximately 10km from the county border. The threats to the integrity of the Natura 2000 sites are predominately from activities that are likely to occur in close proximity to the site. Water quality has been identified as a potential threat to the conservation objectives of the SPA; having examined the hydrological links with the site, it is noted that generally watercourses north of Waterford Airport drain into the King's Channel or the Lower River Suir, whilst those south of the airport drain into the subject site. It is therefore not anticipated that development facilitated within County Kilkenny is likely to have significant adverse impacts on the site's conservation objectives.

- Bannow Bay SAC (000697) & SPA (004033)

The area of the SAC & SPA sites overlap, and are located more than 10km from the county border. The threats to the integrity of the Natura 2000 sites are predominately from activities that are likely to occur in close proximity to the site. Water quality and water pollution have been identified potential threats to the conservation objectives of the SPA and SAC; having examined the hydrological links with the site, it is noted that hydrological connections to the site are located outside of county Kilkenny and do not appear interlinked with watercourses within county Kilkenny. It is unlikely that developments facilitated within County Kilkenny will give rise to adverse impacts on the conservation objectives of the SAC or SPA.

- Slaney River Valley SAC (000781)

The site is located approximately 10km from the county site boundary. The threats to the integrity of the site include drainage, water pollution, eutrophication, severe nutrient enrichment, channel maintenance, arterial drainage and weirs. The hydrological connections to the site are located outside of county Kilkenny and do not appear interlinked with watercourses within county Kilkenny. It is unlikely that developments facilitated within County Kilkenny will give rise to adverse impacts on the conservation objectives of the SAC.

- Mid-Waterford Coast SPA (004193)

The site is located more than 10km from the Kilkenny county border. Identified threats to the site integrity are likely to come from activities in close proximity to the site. It is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives or developments within the county.

Having regard to the foregoing, having assessed the potential threats to the site in relation to the development to be facilitated from the proposed variation, and also having regard to the qualifying interests and conservation objectives of the Natura 2000 sites within 15km of the Kilkenny county border, it is considered unlikely that there will be:

- a) direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of: - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other, or
- b) changes to the site arising as a result of: - reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change, or

- c) impacts on the Natura 2000 site as a whole in terms of: - interference with the key relationships that define the structure of the site; or interference with key relationships that define the function of the site.

#### 4.3.2 Natura 2000 sites within County Kilkenny

- Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:
  - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other.
- Describe any likely changes to the site arising as a result of:
  - reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change.
- Describe any likely impacts on the Natura 2000 site as a whole in terms of:
  - interference with the key relationships that define the structure of the site; interference with key relationships that define the function of the site.

In order to describe the likely direct, indirect or secondary impacts of the project or likely changes to the sites within County Kilkenny it is proposed to assess the likelihood of these impacts on each of the sites.

The table below lists the Natura 2000 sites found within County Kilkenny:

Site Name	SAC Site Code	SPA Site Code
Cullahill Mountain	000831	-----
Hugginstown Fen	000404	-----
Galmoy Fen	001858	-----
Spa Hill & Clomantagh Hill	000849	-----
The Loughans	000407	-----
Thomastown Quarry	002252	-----
Lower River Suir	002137	-----
River Barrow & Nore	002162	-----
River Nore	002162	004233

The proposed variation relates to reduced potential areas of land for development throughout the county, by incorporating the majority of existing local area plans into the county development plan and changing phasing of significant areas of residential zonings beyond the life of the plan. The variation relates primarily to reductions in potential population in the county. The potential impacts from the proposed variation are anticipated to be less extensive than the development potential facilitated by the existing local area plans.

The qualifying interests and threats to the site integrity as set out in table 2, together with the description of the site and qualifying interests as set out earlier in this report are referred to in assessing the likely direct, indirect or secondary impacts or likely changes to the sites.

Map 2 shows the extent of the development boundaries of settlements with local area plans in county Kilkenny, some of which will be affected by the proposed variation. The location of the Natura 2000 sites within the county are shown relative to the location of the settlements.

Map 2: Location of Settlements and candidate Special Areas of Conservation in County Kilkenny



Based on Ordnance Survey of Ireland Map, Licence No. "Kilkenny/CCMA/08/12"

- Cullahill Mountain SAC (000831)

This site lies on a western outlier of the Castlecomer plateau, 6 km north-east of Johnstown along the north county border. The site is designated due to the presence of the priority habitat listed in Annex I of the Habitats Directive - Semi-natural dry grasslands and scrubland facies on substrates (Festuco Brometalia) (\*important orchid sites). The potential threats as identified in the site's conservation plan relate to abandonment of traditional agricultural practices or land reclamation, intensive or very low grazing levels, and the use of artificial fertiliser. Having regard to the distance of the site, both in altitude and geographically from settlements in the area, and those to be affected by the proposed variation, taken together with the largely self-contained nature of the site, it is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives.

- Hugginstown Fen cSAC (000404)

The site is located 4 km south-west of Ballyhale, and consists of a relatively large, isolated area of swamp and floating fen developed in a small valley in hilly country. The catchment is relatively small and iron-rich springs are an important source of water for the wetland.

The site is a candidate Special Area of Conservation selected for alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive. A stream flows from the fen to the River Blackwater north of Mullinavat. The main threats to the fen include draining for cropland, infilling, fertiliser pollution and eutrophication. The primary source of threats is mainly from agricultural activities and the site is unlikely to be significantly affected by the development facilitated from the proposed variation. The existing heritage policies in the county development plan together with proposed policies as per the variation provide for the protection of the SAC.

- Galmoy Fen cSAC (001858)

Galmoy Fen is situated 7 km north of Johnstown along the north county border. It comprises a cutover raised bog that has become flooded with base-rich groundwater and that now supports alkaline fen vegetation and lies in a depression underlain by Carboniferous limestone. This site is a candidate SAC selected for alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive. The identified potential threats to the site are from peat mining, draining for cropland, infilling, fertiliser pollution and eutrophication. Having regard to the distance of the fen from settlements affected by the proposed variation, the lack of watercourses feeding into the fen and the nature of the threats to the site, which primarily originate with agricultural activities, it is considered unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives.

- Spahill and Clomantagh Hill cSAC (000849)

Spahill and the adjacent hills are located to the east of Johnstown, and form part of an escarpment which links the Slieve Ardagh Hills with the Castlecomer Plateau. The site contains a variety of natural grassland communities that are rare in Ireland because of agricultural intensification. Taken with Cullahill Mountain to the north-east it forms a unit of high ecological interest. The presence of a population of Green-winged Orchid in grassland referable to a type listed, with priority status, on Annex I of the EU Habitats Directive is notable. The identified potential threats to the site are from abandonment of traditional agricultural practices or land reclamation, intensive or very low grazing levels, and the use of artificial fertiliser. Having regard to the distance of the site, both in altitude and geographically from settlements in the area, taken together with the largely self-contained nature of the site, it is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives.

- The Loughans cSAC (000407)

The Loughans is a turlough situated in flat land about 3km east of Urlingford, below the Slieve Ardagh Hills. The Loughans is the only large turlough in the south-east of the country, and the highest anywhere in Ireland. It has limited physical variation but, for its size, a fairly diverse vegetation, including open water, ditches, extensive damp areas and a good transition to the high quality lime rich grassland areas. A tributary of the River Goul originates in the Loughans and joins the River Goul north of Urlingford. Identified threats to the site include nutrient enrichment and inappropriate grazing regimes. The primary source of threats is mainly from agricultural activities and the site is unlikely to be significantly affected by the development facilitated from the proposed variation. The existing heritage policies in the county development plan together with proposed policies as per the variation provide for the protection of the SAC.

- Thomastown Quarry cSAC (002252)

Thomastown Quarry is situated along the R700 road about 1 km north of Thomastown, Co. Kilkenny. It comprises a disused limestone quarry in which an excellent diversity of calcareous habitat types has developed. The site is a candidate SAC selected for petrifying springs with tufa formations, a habitat with priority status listed on Annex I of the E.U. Habitats Directive. Bare rock accounts for a significant area of the site, occurring both on cliff faces and the quarry floor. These rocky surfaces are well covered with lichens and mosses. Seepage lines or springs are a feature of the site and of particular importance is the presence of petrifying springs with tufa formations.

The identified threats to the site include land reclamation and drainage. The site is outside of the development boundary Thomastown, and the proposed variation will not affect the zoning of the existing local area plan. It is unlikely that the development to be facilitated by the proposed variation will have significant adverse impacts on the site's conservation objectives.

- Lower River Suir cSAC (002137)

This site consists of the freshwater stretches of the River Suir immediately south of Thurles, the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford and many tributaries. The Suir and its tributaries flows through the counties of Tipperary, Kilkenny and Waterford.

The site is a candidate SAC selected for the presence of habitats and species listed in the E.U. Habitats Directive: (a) priority habitats on Annex I - alluvial wet woodlands and Yew Wood, (b) habitats listed on Annex I - floating river vegetation, Atlantic salt meadows, Mediterranean salt meadows, old oak woodlands and eutrophic tall herbs, and (c) species listed on Annex II - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaité Shad, Atlantic Salmon and Otter. Parts of the site have also been identified as of ornithological importance for a number of Annex I (EU Birds Directive) bird species, including Greenland White-fronted Goose, Golden Plover, Whooper Swan and Kingfisher.

Landuse at the site consists mainly of agricultural activities including grazing, silage production, fertilising and land reclamation. The grassland is intensively managed and the rivers are therefore vulnerable to pollution from run-off of fertilisers and slurry. Arable crops are also grown. Other recreational activities such as boating, golfing and walking are also popular. Several industrial developments, which discharge into the river, border the site including three dairy related operations and a tannery.

In relation to the habitats listed in Annex I of the HD with priority status, namely alluvial forests and yew woodlands, the following threats have been identified - fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage, restricted distribution and lack of suitable habitats for expansion.

The qualifying interests of the site also include the following species listed in Annex I of HD - Atlantic salt meadows, Mediterranean salt meadows, floating river vegetation, old sessile oak woods, and eutrophic tall herbs. Identified threats include – overgrazing by sheep or cattle, erosion, infilling and reclamation, eutrophication, excessive fertilisation, afforestation, invasive alien species, and sub-optimal grazing.

Species listed on Annex II of HD include - sea lamprey, river lamprey, brook lamprey, freshwater pearl mussel, crayfish, twaité shad, Atlantic salmon and otter. Identified threats include - invasive species, arterial drainage, agricultural improvement at the river edge, restricted access to spawning grounds due to weirs, channel maintenance, nutrient enrichment, physical siltation, diseases, parasites, water pollution, road kill, fishing nets and lobster pots.

The threats to the site's integrity and conservation objectives relate mainly to agricultural activities, or alterations to the river itself such as arterial drainage and weirs, and threats from developments that may affect water-bodies in the river catchment – such as eutrophication, water pollution, and physical siltation.

Settlements along the river in County Kilkenny include Piltown, Fiddown, and Ferrybank/ Belview. These settlements will not be affected by the proposed variation – Piltown and Fiddown have recently adopted local area plans, which were screened for appropriate assessment, and amendments to the Ferrybank/ Belview plan will be carried out once the draft variation to the County Development Plan has been adopted.

Potential threats may occur from activities carried out in County Tipperary as the stretches of the river within County Kilkenny are downstream of these in County Tipperary. It is not anticipated that development facilitated by the draft variation will affect sites in County Tipperary, how ever the reverse may be true – the policy of the draft variation requires assessment of cumulative impacts.

Potential threats to the integrity and conservation objectives of the site of the Lower River Suir may arise from activities that are located at geographically remote distances from the site – through hydrological connections with the drainage ditches, streams and tributaries within the river catchment.

It is anticipated that the primary area of threats to the site, as a result of the proposed variation will come from threats to the water quality of the site - eutrophication, water pollution, and physical siltation - through its hydrological connections. These may arise due to water abstraction associated with a development or discharges from a development to the site or to a watercourse which has hydrological links to the site. These discharges may come from waste-water treatment plants, surface water discharges or outfall discharges from surface water attenuation tanks.

The draft variation includes the following policies:

- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams and drainage ditches).*
- *Any significant additional development in the following LAPs as included in Variation 2, Core Strategy (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford), is viewed premature pending the upgrade of the necessary water services infrastructure.*

In addition the above, the existing development plan includes the following policies for the protection of the environment and sites protected under European legislation:

- H6 To assess all proposed developments (individually or in combination with other proposals, as appropriate) which are likely to impact on designated natural heritage sites or those sites proposed to be designated.
- H8 To ensure that any development in or near a designated natural heritage site will avoid any significant adverse impact on the features for which the site has been designated.
- H9 To require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site, or those sites proposed to be designated.
- H10 To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under EU Habitats Directive, EU Birds Directive, the Wildlife Act and the Flora Protection Order.
- H11 Ensure that development does not have a significant adverse impact on plant, animal or bird species protected by national or European legislation.
- IE71 Extend waste water treatment to meet the expanding domestic commercial and industrial needs of the county.
- IE72 Improve the provision of treatment services in those areas where deficiencies exist at present.
- IE74 Meet in full the requirements of the E.U. Urban Waste Water Treatment Directive.
- IE75 Ensure that arrangements for the treatment and disposal of effluent from all forms of development are sustainable and meet environmentally acceptable standards.
- Additional policies for the protection of the environment as set out in the County Development Plan include H4, H5, H7, H12, H14, H15, H16, H17, H23, and IE55, IE58, IE64, IE65, IE66, IE69, IE70, IE76 (the wording of these policies is included in Appendix 1).

Having regard to the site's qualifying interests, the potential threats to the site, the nature and scale of the development to be facilitated under the draft variation, together with the proposed and existing policies for the protection of the environment and designated sites in the county, it is considered unlikely that developments to be facilitated under the draft variation will give rise to significant adverse impact on the integrity of the site and the site's conservation objectives.

- River Barrow and River Nore cSAC (002162)

This site consists of the freshwater stretches of the Barrow/Nore River catchments as far upstream as the Slieve Bloom Mountains and 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 habitats and species listed in the E.U. Habitats Directive – (a) priority habitats on Annex I - alluvial wet woodlands and petrifying springs, (b) habitats listed on Annex I - old oak woodlands, floating river vegetation, estuary, tidal mudflats, *Salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, and (c) 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.

The freshwater stretches of the River Nore main channel is a designated salmonid river. The site is of ornithological importance for a number of E.U. Birds Directive Annex I species including Greenland White-fronted Goose, Whooper Swan, Bewick's Swan, Bartailed Godwit, Peregrine and Kingfisher.

Landuse at the site consists mainly of agricultural activities – many intensive, principally grazing and silage production. Slurry is spread over much of this area. Arable crops are also grown. The spreading of slurry and fertiliser poses a threat to the water quality of the salmonid river and to the populations of Habitats Directive Annex II animal species within the site. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Both commercial and leisure fishing takes place on the rivers. There is net fishing in the estuary and a mussel bed also. Other recreational activities such as boating, golfing and walking, particularly along the Barrow towpath are also popular. There is a golf course on the banks of the Nore at Mount Juliet and GAA pitches on the banks at Inistioge and Thomastown. There are active and disused sand and gravel pits throughout the site. Several industrial developments, which discharge into the river, border the site. New Ross is an important shipping port. Shipping to and from Waterford and Belview ports also passes through the estuary.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, overgrazing within the woodland areas, and invasion by non-native species. The water quality of the site remains vulnerable. Good quality water is necessary to maintain the populations of the Annex II animal species listed above. Good quality is dependent on controlling fertilisation of the grasslands, particularly along the Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

In relation to the habitats listed in Annex I of the HD with priority status, namely alluvial wet woodlands and petrifying springs, the following threats have been identified - fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage, and land reclamation. The qualifying interests of the site also include the following habitats listed in Annex I of HD - old oak woodlands, floating river vegetation, estuary, tidal mudflats, *salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs. Identified threats include – invasive alien species, sub-optimal grazing, eutrophication, overgrazing, excessive fertilisation, afforestation, aquaculture, fishing, coastal development, water pollution, bait digging, removal of fauna, coastal protection works, accretion cycles, storms, erosion, infilling, reclamation, afforestation, over-burning, bracken invasion.

Species listed on Annex II of HD include - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Nore Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter, Desmoulin's Whorl Snail, Killarney Fern. Identified threats include – invasive species, arterial drainage, agricultural improvement at the river edge, weirs restricting access to spawning beds, channel maintenance, poor substrate quality as a result of severe nutrient enrichment, physical siltation, diseases, parasites, water pollution, road kill, fishing nets and lobster pots, drainage of wetlands and riparian management, spread of urban development, modifications to the site's hydrology, through pollution, or woodland clearance.

The threats to the site's integrity and conservation objectives relate mainly to agricultural activities, forestry, fishing, drainage, channel maintenance, weirs, infilling, reclamation, fragmentation,

spread of urban development and threats from developments that may affect water-bodies in the river catchment – such as eutrophication, water pollution, and physical siltation.

The potential threats that could arise as a result of developments facilitated by the draft variation relate mainly to impacts on water quality from inadequate treatment of sewage, or threats from abstractions or discharges to watercourses (drainage ditches, streams and tributaries) in the river catchment with hydrological connections to the SAC – even though the site of the development is geographically remote from the SAC.

Settlements along the river in County Kilkenny include Ballyragget, Castlecomer, Kilkenny, Bennettsbridge, Callan, Kells, Stoneyford, Thomastown, Knocktopher, Ballyhale, Inistioge (along the River Nore) and Goresbridge, Graiguenamanagh (along the River Barrow) and New Ross Environs, Ferrybank/ Belview along the lower stretches of the rivers. Most of these settlements will be affected by the draft variation; however the variation will significantly reduce the amount of land available for development in each settlement over the life of the plan.

Potential threats may occur from activities carried out in counties up-stream of the stretches of the rivers in county Kilkenny, or from activities carried out in adjacent counties such as Carlow or Wexford. It is not anticipated that development facilitated by the draft variation will affect the integrity of the site occurring upstream of the stretches of the river in county Kilkenny; however the reverse may be true, in this regard the policy of the draft variation requires assessment of cumulative impacts.

The draft variation includes the following policy:

- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams and drainage ditches).*
- *Any significant additional development in the following LAPs as included in Variation 2, Core Strategy (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford), is viewed premature pending the upgrade of the necessary water services infrastructure.*

In addition to the above, the existing development plan includes the following policies for the protection of the environment and sites protected under European legislation:

- H5 To protect natural heritage sites designated in National and European legislation, This includes sites proposed to be designated or designated as Special Areas of Conservation (SAC), *Special Protection Areas (SPA)\**, Natural Heritage Areas (NHA), Nature Reserves and Wildfowl Sanctuaries. This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan.  
\*(note – draft variation inserts SPAs into policy H5)
- H6 To assess all proposed developments (individually or in combination with other proposals, as appropriate) which are likely to impact on designated natural heritage sites or those sites proposed to be designated.
- H8 To ensure that any development in or near a designated natural heritage site will avoid any significant adverse impact on the features for which the site has been designated.
- H11 Ensure that development does not have a significant adverse impact on plant, animal or bird species protected by national or European legislation.
- H12 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking or approving development which is likely to affect plant, animal or bird species protected by national or European legislation.
- H14 To protect and enhance wildlife habitats and lands features which form part of habitat networks, such as river corridors and associated habitats.
- IE71 Extend waste water treatment to meet the expanding domestic commercial and industrial needs of the county.
- IE72 Improve the provision of treatment services in those areas where deficiencies exist at present.

- IE74 Meet in full the requirements of the E.U. Urban Waste Water Treatment Directive.
- IE75 Ensure that arrangements for the treatment and disposal of effluent from all forms of development are sustainable and meet environmentally acceptable standards.
- IE76 Implement the Sludge Management Plan for the county.

Additional policies for the protection of the environment as set out in the County Development Plan include H4, H7, H9, H10, H23, H15, H16, H17, IE55, IE58, IE64, IE65, IE69, IE70, IE66 (the wording of these policies is included in Appendix 1).

Having regard to the site's qualifying interests, the potential threats to the site, the nature and scale of the development to be facilitated under the draft variation, together with the proposed and existing policies for the protection of the environment and designated sites in the county, it is considered unlikely that developments to be facilitated under the draft variation will give rise to significant adverse impact on the integrity of the site and the site's conservation objectives.

- River Nore proposed SPA (004233)

(Note: further details of the proposed site, are unavailable from NPWS at the time of writing of this report).

The site is selected as proposed for protection for the conservation of the Kingfisher (*Alcedo atthis*), species listed on Annex I of the E.U. Birds Directive.

As per the site synopsis for the SAC of the River Nore the main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, and invasion by non-native species. The water quality of the site remains vulnerable. Good quality is dependent on controlling fertilisation of the grasslands, along the Nore. It also requires that sewage be properly treated before discharge. Other threats include disturbance due to works at the site.

The draft variation includes the following policy:

- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams, drainage ditches and drains).*

Insert at section 8.2.1

The ~~five~~ four categories of designated sites in effect in County Kilkenny are:

*Special Protection Area (SPA)*

- *SPAs have been, and are being designated, under the EU Habitats Directive to protect birds which are rare, in danger of extinction or vulnerable to changes in habitat and which need protection.*

In addition the above, the existing development plan includes the following policies for the protection of the environment and sites protected under European legislation:

H5 To protect natural heritage sites designated in National and European legislation, This includes sites proposed to be designated or designated as Special Areas of Conservation (SAC), *Special Protection Areas (SPA)\**, Natural Heritage Areas (NHA), Nature Reserves and Wildfowl Sanctuaries. This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan. (\* to be inserted as part of draft variation)

H7 To consult with the prescribed bodies and relevant government agencies when assessing development which are likely to impact on designated natural heritage sites or those sites proposed to be designated.

H8 To ensure than any development in or near a designated natural heritage site will avoid any significant adverse impact on the features for which the site has been designated.

H9 To require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site, or those sites proposed to be designated.

H10 To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under EU Habitats Directive, EU Birds Directive, the Wildlife Act and the Flora Protection Order.

H11 Ensure that development does not have a significant adverse impact on plant, animal or bird species protected by national or European legislation.

H12 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking or approving development which is likely to affect plant, animal or bird species protected by national or European legislation.

IE72 Improve the provision of treatment services in those areas where deficiencies exist at present.

IE74 Meet in full the requirements of the E.U. Urban Waste Water Treatment Directive.

IE75 Ensure that arrangements for the treatment and disposal of effluent from all forms of development are sustainable and meet environmentally acceptable standards.

The proposed SPA site will be contained within the SAC boundaries. It is considered that having regard to the policies as per the draft variation, together with the existing policies as per the County Development Plan, that it is unlikely that developments to be facilitated under the draft variation will give rise to significant adverse impacts on the integrity of the site and the site's qualifying interests.

Having regard to the foregoing, having assessed the potential threats to the sites in relation to the development to be facilitated from the proposed variation, and also having regard to the qualifying interests and conservation objectives of the Natura 2000 sites within county Kilkenny, together with draft policies and existing policies, it is considered unlikely that there will be:

- c) direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of: - size and 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 requirements; transportation requirements; duration of construction, operation, decommissioning, etc.; other, or
- d) changes to the site arising as a result of: - reduction of habitat area; disturbance to key species; habitat or species fragmentation; reduction in species density; changes in key indicators of conservation value (water quality etc.); climate change, or
- c) impacts on the Natura 2000 site as a whole in terms of: - interference with the key relationships that define the structure of the site; or interference with key relationships that define the function of the site.

**4.4 Provide indicators of significance as a result of the identification of effects set out above in terms of: - loss; fragmentation; disruption; disturbance; change to key elements of the site (e.g. water quality etc.)**

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.**

Having regard to the likely impacts which have been assessed under the criteria as set out above, it is considered unlikely that there will be significant impacts on sites which are outside of the Kilkenny county border. Having assessed the likely potential significant impacts on sites within the county it is considered that the potential threats to the Natura 2000 sites within the county are most likely to arise in relation to impacts on the hydrology of the river networks and their catchment area, through developments involving activities such as abstraction, wastewater discharges, surface water discharges or discharges from surface water attenuation tanks. Indicators of impacts on the site's hydrology would involve low water levels from abstractions, eutrophication and water pollution.

Taking into account the nature of the development to be facilitated under the draft variation, which involves a substantial reduction in the area of zoned land available for development within the life of the plan, together with the policies proposed under the draft plan and the existing policies in the County Development Plan which provide for the protection of the environment and of the designated sites within the county, it is considered unlikely that the draft variation will have significant adverse impacts on any Natura 2000 sites.

## Section 5

### 5.1 Discussion of Potential Impacts from the draft Variation

The draft Variation to the Kilkenny County Development Plan 2008-2014 aims to bring the settlement strategy for the county in line with the Regional Planning Guidelines for the South-East Region 2010.

At present, Kilkenny contains zoned land in 18 Local Area Plans and in the Kilkenny City & Environs Development Plan. As of June 2010, the total amount of zoning for residential use equalled approximately 870 hectares (this included zoned land in 6 LAPs which are now expired).

To accommodate the project population expansion, the South Eastern Regional Planning Guidelines determined that in the order of 254 hectares of zoned land would be required in Kilkenny over the period 2010-2016. Therefore the core strategy will involve a significant level of phasing of zoned development land, in order to meet the objectives of the Regional Planning Guidelines. The Regional Planning Guidelines have divided the county allocation between the gateway (Waterford environs in Co. Kilkenny), the hub (Kilkenny city) and the remainder.

In the context of Habitats Directive Assessment, potential impacts on Natura 2000 sites may arise where existing population levels or increased population growth cannot be served by water and wastewater infrastructure leading to deterioration of water quality standards and pollution which may compromise habitat quality and thereby affect the favourable conservation status of habitats and species.

Eutrophication in some instances may provide richer feeding grounds for bird life in SPAs but largely water pollution will be a considered a threat to site integrity in the Natura 2000 network.

Development which has an outfall to a watercourse which is hydrologically connected to a Natura 2000 site requires the provision of adequate waste water treatment capacity and appropriate level of treatment to reduce the threat of deteriorating water quality.

The local authority has prepared an Assessment of Needs for Water Services that was submitted to the DoEHLG under the Department's Water Services Investment Programme in October 2009. These needs are prioritised under four themes: (1) Water Conservation Proposals, (2) Works required responding to ECJ judgements, (3) Environment/Public Health, and (4) Works to support Economic Development.

The report states that 'a number of villages and small towns in County Kilkenny have wastewater facilities which do not comply with Urban Waste Water Standards and urgently require upgrades. This is reflected by their high priority'. 'The priority lists submitted, reflect what we anticipate will be included in the SE River Basin Management Plan, The prioritisation reflects the fact that almost all waste water outfalls in County Kilkenny discharge to the Barrow Nore ACS, where under the Water Framework Directive, 'good' status must be achieved by 2015. It is important to note that part of North Kilkenny (Urlingford, Johnstown & Ballyragget) is in an area inhabited by Freshwater Pearl Mussel'.

Appendix 3 sets out the water supply and wastewater treatment capacities available in the county. Six settlements (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford) do not have spare capacity available in both water supply and waste water treatment services. For these six settlements, this variation will reduce the level of land available for development, and a policy will be inserted in Chapter 9, section 9.11 to state that:

*Any significant additional development in the following LAPs as included in Variation 2, Core Strategy (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford), is viewed premature pending the upgrade of the necessary water services infrastructure.*

While continued population growth promoted in the draft Variation could give rise to deteriorating water quality standards it is considered the provisions of the policies in the draft Variation and existing County Development Plan, together with the provision of the 2007 Waste Water Discharge Regulations and priority scheme for the Water Services Investment Programme will set out to address any existing future deficiencies in the infrastructure required to service this growth.

## **5.2 Development Policies and Objectives**

Potential impacts on the Natura 2000 network from all policies and development objectives in the draft Variation were assessed, details of which are set out in Appendix 1.

The draft Variation sets out a framework for a substantial reduction in the availability of land for development, and in particular residential development; while such development may impact on Natura 2000 sites the policies provide for assessment of individual proposals where it is considered that there may be potential impacts on designated sites.

Policies are included in the draft Variation, in addition to those in the existing County Development Plan to ensure that any proposals that could impact on SACs/SPAs are screened for appropriate assessment where relevant and progressed in compliance with Article 6 of the Habitats Directive.

There are 7 Natura 2000 sites located within 15km of County Kilkenny, two of these sites are designated, due to their qualifying interests, as both SACs and SPAs. The lower reaches of the River Nore, River Barrow and Lower River Suir flow through, or along the counties borders; no significant impacts arising from the draft Variation are anticipated upstream in these river corridors. Other Natura 2000 sites within 15km of the county's boundary are self-contained habitats that will not be directly affected by policies in the draft Variation.

## **5.3 Conclusion**

A Habitats Directive Screening Assessment was carried out on the draft Variation to the Kilkenny County Development Plan 2008-2014. Preparation of the assessment involved consultation with the NPWS Conservation Ranger to identify general issues of concern for conservation in the county and screening of policies and objectives at pre-draft Variation stage.

A review of conservation objectives and threats to site integrity for the range of Natura 2000 sites in the county and adjoining counties was undertaken to identify sites that may be impacted by policies/objectives in the draft Variation. The assessment found that developments that have hydrological connections to designated sites, even though located geographically remote from the sites are considered to be the main area of potential threats to sites within the county likely to arise from the draft variation.

This assessment should be read in conjunction with the draft Variation 2 to the Kilkenny County Development Plan 2008-2014 and the accompanying Environmental Report prepared in fulfilment of the SEA process. Comments on the assessment are invited during the period of public consultation from 26<sup>th</sup> May to 28<sup>th</sup> June 2011.

As per the process outlined in Section 4, and subject to comments by the National Parks and Wildlife Service on this screening assessment, a Finding of No Significant Effects Report (attached at end of this report), is proposed based on the measures in the policies proposed in the draft Variation, together with those in the existing County Development Plan, and the nature of the proposed Variation to reduce the amount of zoned lands available for development, and the objectives of the Water Services Investment Programme. The appropriate assessment therefore stops at the screening stage and does not proceed to stage 2 of the process.

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[www.environ.ie](http://www.environ.ie) Department of Environment, Heritage and Local Government.

[www.npws.ie](http://www.npws.ie) National Parks and Wildlife Service

[www.birdwatchireland.ie](http://www.birdwatchireland.ie) Bird Watch Ireland

## **Appendices**

## Appendix 1 – Assessment of policies in the draft Variation

The policies proposed in the draft Variation to the County Development Plan are as follows:

- *PS1 To implement the National Spatial Strategy and Regional Planning Guidelines by encouraging developments into the designated Hub of Kilkenny and the environs of the Waterford Gateway*
- *PS2 To cooperate with the relevant local and regional authorities in the development of the Atlantic Gateways Initiative*
- *PS3 To ensure that there is sufficient development capacity for the various land uses required to support Kilkenny City & Environs as Hub*
- *PS4 To facilitate and promote the continued development of the Belview Port Area as a strategic port for the region.*
- *PS5 To amend the adopted LAP for the Ferrybank/Belview area to take account of the Core Strategy for the County and ensure that there is sufficient development capacity for the various land uses required to support the Waterford Gateway.*
- *PS6 To support the strengthening of critical mass within the catchment of the Waterford Gateway by implementing a co-ordinated approach to the development of New Ross and its environs within County Kilkenny between Kilkenny County Council, New Ross Town Council and Wexford County Council*
- *PS7 To amend the LAPs for Callan, Castlecomer, Graiguenamanagh and Thomastown adopted in 2009 to take account of the Core Strategy for the County.*
- *PS8 To ensure that the District Towns will in so far as practical be self-sufficient incorporating employment activities, sufficient retail services and social and community facilities.*
- *PS9 Promote enterprise and economic development in Graiguenamanagh in line with the Graiguenamanagh-Tinnahinch Development and Economic Study, 2006*
- *PS It is the policy of the Council to encourage low density housing in the form of individual or multiple developments within rural service centres and also immediately adjacent (i.e. within 150 m) to an operating isolated rural service such as a school, public house, church or shop.*
- *PS 10 To strengthen the service centre role of smaller towns and villages.*
- *PS 11 Each proposal for development within the smaller town or village will be considered on its merits.*
- *PS 12 To ensure that new residential development in smaller towns and villages is of a design, layout, character and scale which fits well with the town or village involved and presents a high quality living environment.*
- *PS 13 In assessing proposals for housing development, and where appropriate extensions of duration of permission, the Council will have regard to the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009).*
- *PS 14 The Council will seek environmental, community and infrastructural improvements in settlements, where appropriate, in order to that become more attractive settlement centres and assist in their long term vitality and viability along with that of the rural hinterland*
- *PS 15 To revitalise existing villages through the promotion of development within them (particularly on infill sites, vacant sites and on backlands), in preference to continued ribbon development on the approach roads. This will promote the efficient use of available public infrastructure and services.*
- *PS 16 To provide for development to support, strengthen and expand the service base of Ballyhale, Ballyragget, Inistioge, Knocktopher, Mooncoin and Urlingford, allowing development appropriate to the scale and character of these settlements whilst protecting their natural and built heritage.*
- *PS 17 To prohibit development of phase 2 lands in the settlements of Freshford, Goresbridge, Kells, Mullinavat, Slieverue, Stoneyford, Bennettsbridge and Kilmacow during the lifetime of the County Development Plan.*
- *PS 18 In partnership with relevant stakeholders and local communities, to facilitate and support the preparation and implementation of appropriate planning framework documents for appropriate villages in the county, as the need arises and resources allow.*
- *PS 19 Have regard to Village Design Statements and expired local area plans that have been prepared in consultation with the local community, and with the relevant agencies, as supplementary planning guidance documents.*
- *PS 20 For smaller towns and villages, no one proposal for residential development should increase the existing housing stock by more than 12.5% within the lifetime of the plan.*

- *PS 21 For villages of under 400 in population, any individual scheme for new housing should not be larger than about 10-12 units.*
- *PS 22 Any significant additional development in Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford will not be permitted pending the upgrade of the necessary water services infrastructure.*
- *Ensure that any plan or project which has the potential to directly, indirectly or cumulatively impact on a site protected under European legislation (SAC or SPA), is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Any such plans or projects shall be referred to the Department of the Environment, Heritage and Local Government for comments. Potential threats to a designated site may arise from developments such as water abstraction, or discharges from wastewater treatment plants, surface water or surface water attenuation at locations which are geographically remote from the site, through hydrological links with the designated site (tributaries, streams, drainage ditches and drains).*
- *To protect sites identified in the recommendations resulting from habitat surveys and assessments carried out for small towns/ villages during 2010.*

**Discussion of potential impacts of the proposed policies as per the draft Variation on Natura 2000 sites in County Kilkenny and on sites within 15km of the County:**

The policies are designed to focus future growth into settlements in a more strategic manner in accordance with the requirements of the *Regional Planning Guidelines for the South-East*. The variation and its policies promote a significant reduction in the level of development to be carried out in the county over the life of the plan, and therefore reduce the potential for significant impacts on Natura 2000 sites – such as policies PS20, PS21 and PS22. In addition policies in relation to the protection of the environment have also been proposed as part of the draft variation.

Each of the Natura 2000 sites both within county Kilkenny and within 15km of the county have been assessed in Section 4 of the report for direct, indirect and secondary impacts, as well as potential changes to the site or likely impacts on the site as a result of the draft variation. It is considered that having regard to the nature and revised scale of development to be facilitated by the draft variation, and protection afforded to the sites through existing and proposed policies, together with an assessment of their conservation objectives and the potential threats to the site, that it is not likely that any of the sites will experience significant adverse impacts.

In addition to the more moderate levels of growth envisioned as being facilitated by the proposed variation, the existing policies as set out in the County Development Plan, provide for the protection, and enhancement of Natura 2000 sites in the county – policies which particularly relate to the protection of the environment, watercourses, natural heritage and Natura 2000 sites are set out below.

Existing policies in the *Kilkenny County Development Plan 2008-2014* relating to the protection of the environment, water services and designated natural heritage sites are set out as follows:

**Heritage policies**

- H5 To protect natural heritage sites designated in National and European legislation. This includes sites proposed to be designated or designated as Special Areas of Conservation (SAC), Natural Heritage Areas (NHA), Nature Reserves and Wildfowl Sanctuaries. This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan.
- H6 To assess all proposed developments (individually or in combination with other proposals, as appropriate) which are likely to impact on designated natural heritage sites or those sites proposed to be designated.
- H7 To consult with the prescribed bodies and relevant government agencies when assessing developments which are likely to impact on designated natural heritage sites or those sites proposed to be designated.
- H8 To ensure that any development in or near a designated natural heritage site will avoid any significant adverse impact on the features for which the site has been designated.
- H9 To require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site, or those sites proposed to be designated.
- H10 To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under EU Habitats Directive, EU Birds Directive, the Wildlife Act and the Flora Protection Order.

- H11 Ensure that development does not have a significant adverse impact on plant animal or bird species protected by national or European legislation.
- H12 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking, or approving development which is likely to affect plant, animal or bird species protected by national or European legislation.
- H14 To protect and enhance wildlife habitats and landscape features which form part of habitat networks, such as river corridors and associated habitats.
- H17 Where the loss of habitats and features of the wider countryside is unavoidable as part of a development, to ensure that appropriate mitigation and/or compensation measures are put in place, to conserve and enhance biodiversity and landscape character.
- H19 Integrate bio-diversity considerations into Council plans, programmes and activities.
- H51 To consult with the Southern Regional Fisheries Board and the National Parks and Wildlife Service prior to undertaking, approving or authorising any works or development which may have an impact on rivers, streams and waterways.

#### Water Services policies

- IE50 To protect, maintain, improve and enhance the quality of watercourses and rivers in the County.
- IE51 Ensure that septic tanks and proprietary treatment systems, or other waste water treatment and storage systems, where required as part of a development, comply with relevant guidelines and that they are employed where site conditions are appropriate.
- IE52 Have regard to the Groundwater Protection Scheme in decision-making on the location, nature and control of developments and activities in order to protect groundwater.
- IE53 To actively participate in the implementation of the Water Framework Directive.
- IE54 To jointly with other local authorities and the relevant Public Authorities, participate and co-operate in the South Eastern River Basin District Management Project.
- IE55 To implement the South Eastern River Basin Management Plan.
- IE56 To increase public awareness of water quality issues and the measures required to protect and where required, improve the quality of all waters
- IE57 To take account of the findings of the National Programs of Measures Studies being developed for the River Basin Management Plans.
- IE58 Ensure the sustainable and economic provision of an adequate supply of good quality water for industrial, domestic and other beneficial uses, including the propagation of healthy fish stocks.
- IE59 Implement its adopted Water Quality Management Plans in order to prevent pollution and to ensure that beneficial uses of the waters e.g. industrial, domestic and agricultural abstraction, fishing and recreation, are protected.
- IE61 Prevent industrial water pollution by ensuring that development is appropriately located, by seeking effluent reduction and 'clean production' where feasible, by requiring that waste water treatment facilities are adequate, and that effluents are treated and discharged in a satisfactory manner.
- IE62 Prevent pollution of water by means of development management and enforcement measures.
- IE64 To implement the Water Quality Management Plans for the Barrow, Nore and Suir Rivers pending adoption of the South East River Basin Management Plan.
- IE65 Implement the capital programme outlined in the Provision of Water and Wastewater Infrastructure in Kilkenny City and County, March 2007.
- IE67 Improve the provision of services in those areas where deficiencies exist at present.
- IE68 Encourage the economic use of existing service.
- IE69 Conserve valuable water supplies by eliminating leakages and through raising public awareness of the need for water conservation.
- IE70 Conserve and protect sources of supply through the application of the principles of sustainability in their development and controlling development in their vicinity, which would give rise to adverse impacts.
- IE71 Extend waste water treatment to meet the expanding domestic commercial and industrial needs of the County.
- IE72 Improve the provision of treatment services in those areas where deficiencies exist at present.
- IE73 Encourage the economic use of existing treatment service.
- IE74 Meet in full the requirements of the E.U. Urban Waste Water Treatment Directive.
- IE75 Ensure that arrangements for the treatment and disposal of effluent from all forms of development are sustainable and meet environmentally acceptable standards.
- IE76 Implement the Sludge Management Plan for the county.

## Appendix 2 – Circular PD7/09 Waste Water Discharge Regulations



Comhshool, Oidhreacht agus Rialtas Áitiúil  
Environment, Heritage and Local Government



16th July 2009

Circular PD 7/09

### **Waste Water Discharge (Authorisation) Regulations SI No. 684 of 2007**

A Chara,

This circular sets out certain obligations on planning authorities under the Waste Water Discharge (Authorisation) Regulations 2007 (SI 684 of 2007) as well as the interrelationship between these requirements and investment plans under the Department's Water Services Investment Programme. This circular is advisory, and not a legal interpretation of the Regulations.

#### **Background**

The Waste Water Discharge (Authorisation) Regulations 2007 were introduced to, among other things, provide for an authorisation/licensing regime for local authority waste water discharges. The Regulations were part of a range of measures implemented in response to an adverse judgment of the European Court of Justice, in Case C-282/02, concerning Ireland's transposition and implementation of the Dangerous Substances Directive 76/464/EEC (June 2005).

Local authorities and An Bord Pleanála will be aware that Part VIII of the 2007 Regulations establishes a clear linkage between decisions that they make as planning authorities on individual planning applications/appeals, and parallel obligations on local authorities, as water services authorities, to comply with emission limits for the discharge of wastewaters to water bodies arising from the stricter of either or both the Urban Waste Water Regulations (S.I. No. 254 of 2001) and emission limits based on achieving the environmental quality standards for the receiving waters, defined as the "Combined Approach"<sup>1</sup> under article 3 of the 2007 Regulations. The EPA is required under the Waste Water Regulations to apply the combined approach when issuing licences, ensuring that the licence issued and discharge limits set therein comply in full with the requirements of the EU Urban Waste Water Treatment Directive.

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<sup>1</sup> "combined approach", in relation to a waste water works, means the control of discharges and emissions to waters whereby the emission limits for the discharge are established on the basis of the stricter of either or both, the limits and controls required under the Urban Waste Water Regulations, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made.

The effect of the 2007 Regulations is such that planning authorities must assure themselves that in approving development that would give rise to additional discharges to a waste water works or from storm water overflows governed by EPA licences, such discharges, taken in conjunction with discharges from other existing and/or already approved development, are capable of being treated in a manner that is compliant with the stricter of the requirements of: 1. The Urban Waste Water Regulations; or 2. The requirements of an EPA licence (which should already incorporate the requirements at (1) above) and which may incorporate more demanding requirements than (1) above depending on the assimilative capacity and the environmental quality objectives that have been established for the receiving waters in question. At the same time, a programme of investment in water services infrastructure across the country is being implemented under the Department's Water Services Investment Programme to ensure that infrastructure is in place to both facilitate proper planning and sustainable development and to protect the environment, especially water quality, in compliance with national and EU requirements.

### **Obligations on Planning Authorities and An Bord Pleanála**

Article 43 of the 2007 Regulations requires that where a planning authority or An Bord Pleanála is considering an application for permission, an appeal or an application for approval under Section 34, 37, 37E, 175 or 226 of the Planning and Development Act 2000 for development which involves the disposal of waste water to a waste water works or is considering such a development under Section 179 of the 2000 Act, the authority or the Board must consider whether the discharges of wastewater from the proposed development, taken in conjunction with existing and/or already approved discharges, would cause non-compliance with the Combined Approach referred to above.

Therefore, an assessment of the adequacy of wastewater collection and disposal facilities to cater for the development proposed is now an essential requirement and a material consideration in the evaluation by planning authorities and the Board of applications for permission, in determining appeals or applications for approval of the types mentioned above and documentary evidence of, or reference to such an assessment must be attached to the relevant file.

Article 43 of the 2007 Regulations also requires that where a planning authority or the Board forms an opinion that the discharge from a proposed development would result in non-compliance with, or a significant breach of the combined approach, the planning authority or the Board shall, as the case may be:

- (a) refuse permission or approval for the development;
- (b) impose conditions on any grant of permission or approval to ensure that the discharge will not cause non-compliance with, or a significant breach of, relevant limits; or
- (c) decide not to proceed with the development (as in the case of local authority own development).

Article 44 of the 2007 Regulations provides that where a planning authority, including An Bord Pleanála, considers a proposed development is likely to have a significant impact on waste water discharges, it may request the EPA to provide observations in relation to the planning authority's assessment of the likely impact of the proposed development on discharges. The EPA must comply with any such request and, in making its decision, the planning authority or the Board shall have regard to the Agency's observations.

### **Considerations in dealing with planning applications**

The EPA has indicated that in the ongoing programme of licensing of discharges from each municipal wastewater treatment plant, one or other of the following scenarios will arise –

- (1) there will be plants where discharges will be compliant with the terms of their waste water discharge license on the grant of the licence; and
- (2) there will be plants where discharges will not be immediately compliant with the terms of waste water discharge licences and where the licence includes a specified improvement programme and timeframe for the necessary remedial measures or works to be executed.

When considering proposed developments in locations where scenario 1 applies, planning authorities should monitor the cumulative effect of grants of permissions and approvals on available wastewater treatment capacity under the terms of the work's licence. In cases subject to applications or appeals to An Bord Pleanála, the cumulative assessment referred to above must form part of the documentation submitted to the Board. It is then a matter for the planning authority or the Board to decide on particular applications in the normal manner, having regard to the effects of the extra loadings of the proposed development on available wastewater facilities, and any EPA observations.

In relation to proposed developments in locations where scenario 2 applies, planning authorities and the Board should assess the impact of any proposed development very carefully and should either:

- (a) avoid approving development that would create significant additional loadings on existing wastewater treatment works or storm water overflows that are already evidently struggling to meet the current terms of the waste water discharge licence and where upgraded facilities will take considerable time to put in place; or
- (b) consider granting permission where suitably upgraded facilities will be procured, within a reasonable timescale that would allow the development proposed to proceed, in accordance with the specified improvement programme timeframe for compliance with the emission limit values in the relevant EPA discharge licence and ensuring that the requirements of the "combined approach" will be met.

In addition, planning authorities should only consider granting permission under paragraph (b) above where the development proposed is otherwise in accordance with the implementation of –

- the National Spatial Strategy;
  - any Regional Planning Guidelines in force;
  - the provisions of the relevant development plan and any local area plan; and
- will contribute towards the longer term proper planning and sustainable development of the area.

## **Interaction between planning authorities and water services authorities**

It is crucially important, in situations where waste water treatment works receive discharges from more than one water services authority area, that regular and effective co-ordination takes place between planning authorities regarding (a) tracking the cumulative impact of ongoing grants of planning permission on remaining waste water treatment capacity and storm water overflow discharges, and (b) compliance with the combined approach referred to above and the terms of relevant EPA waste water discharge licences.

The EPA normally require, as a standard condition on waste water discharge licences, that water services authorities submit an Annual Environmental Report (AER) in respect of each discharge licence, detailing any increase in discharges and further planning consents that have accrued since the previous AER was submitted, taking account of the overall requirement to comply with the licence conditions.

Taking account of the above, the planning authorities that share the use of one or more wastewater treatment facilities must nominate one central co-ordinating planning authority to monitor the cumulative impact of the granting of planning permissions for future development on the remaining wastewater treatment capacity, and co-operate with that authority in submitting information on relevant planning decisions. Use of Geographical Information Systems and real time relay of information would be desirable in this type of co-ordination.

## **Investment in Water Services Infrastructure**

Mindful of the implications of the 2007 Regulations in facilitating proper planning and sustainable development, the Department is focused on working pro-actively with water services authorities and investing in enhanced water services infrastructure in areas of greatest need from an environmental protection and economic development perspective.

The Department will engage with water services authorities in the near future in determining strategic water services investment requirements, taking account of the availability of public funding, and will be endeavouring to ensure that the appropriate infrastructural investment responses are in place in areas of greatest need to both meet the requirements of the 2007 Regulations and facilitate overall national and regional development priorities.

If you have any queries in relation to this circular please contact the undersigned.

Yours sincerely ,

**Barry Quinlan**

Barry Quinlan  
Planning System

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## Appendix 3 - Water Supply & Wastewater Treatment Capacities

There are a number of constraints with existing water supply schemes serving the settlements included in this variation. The table below summarises the details of the schemes serving each of these settlements.

**Details of water supply in settlements covered by Variation 2**

Settlement	Scheme Name	Comment	Proposal under variation
Ballyhale	Bennettsbridge Regional WSS	At capacity	No zoning
Ballyragget	Ballyragget WSS	Capacity exists	No zoning
Bennettsbridge	Bennettsbridge Regional WSS	At capacity	Revised zoning and phasing
Freshford	Kilkenny city (Troyswood) Regional WSS	Limited spare capacity	Revised zoning and phasing
Goresbridge	Gowran Goresbridge Paulstown	Supply volumes are inadequate to meet any further development.	Revised zoning and phasing
Inistioge	Inistioge WS	Limited additional capacity	No zoning
Kells	Bennettsbridge Regional WSS	At capacity	Revised zoning and phasing
Kilmacow	Mooncoin Regional WSS	Capacity exists	Revised zoning and phasing
Knocktopher	Bennettsbridge Regional WSS	At capacity	No zoning
Mooncoin	Mooncoin Regional WSS	Capacity exists	No zoning
Mullinavat	Mooncoin Regional WSS	Capacity exists	Revised zoning and phasing
New Ross (Environs)	New Ross WSS (Wexford County Council)	Capacity exists	Revised zoning and phasing
Slieverue	Mooncoin Regional WSS	Capacity exists	Revised zoning and phasing
Stoneyford	Bennettsbridge Regional WSS	At capacity	Revised zoning and phasing
Urlingford	Urlingford - Johnstown Water Supply Scheme	At capacity	No zoning

### Future requirements

The objective of this Variation is to bring the County Development Plan, and subsequently, a number of Local Area Plans, into line with the Regional Planning Guidelines. This will entail a reduction in the amount of land available for development in each settlement. The extent of the remaining zoned land available will very much depend on the water services available.

There are a number of constraints with the existing Waste water treatment plants serving the settlements as set out below.

**Details of waste water treatment plant in settlements covered by Variation 2**

Settlement	WWTP Type	Design P.E.	Current load P.E.	Comment on upgrade	Proposal under variation
Ballyhale	Secondary	400	500	WWTP due to be upgraded end of 2012 (shared plant with Knocktopher)	No zoning
Ballyragget	Secondary	1,920	950	Capacity available	No zoning
Bennettsbridge	Primary	600	1,425	Overloaded. Upgrade post 2013 & funding dependant.	Revised zoning and phasing
Freshford	Primary	400	1,000	Overloaded. Upgrade planned 2012 – funding dependant	Revised zoning and phasing
Goresbridge	Primary	400	500	Overloaded. Upgrade funding dependant.	Revised zoning and phasing
Inistioge	Primary	400	700	Overloaded. Upgrade funding dependant.	No zoning
Kells	Secondary	350	600	Overloaded. No immediate plans for upgrade.	Revised zoning and phasing
Kilmacow	Secondary	2500	1300	New plant. Capacity available.	Revised zoning and phasing
Knocktopher	Secondary	400	500	WWTP due to be upgraded end of 2012 (shared plant with Ballyhale)	No zoning
Mooncoin	Secondary	2800	1325	Capacity available	No zoning
Mullinavat	Primary	280	520	Overloaded. Upgrade post 2013 & funding dependant.	Revised zoning and phasing
New Ross (Environs)	Secondary	1900	200	New plant in Co. Wexford. Design PE represents capacity reserved for Kilkenny County Council. Capacity available	Revised zoning and phasing
Slieverue (Belview WWTP)	Secondary	19,500	5,100	New Waterford City plant at Belview. Design PE represents capacity reserved for Kilkenny County Council for Waterford City Environs and Slieverue. Capacity available.	Revised zoning and phasing
Stoneyford	Secondary	500	930	Overloaded. Upgrade funding dependant.	Revised zoning and phasing
Urlingford	Secondary	1,500	2,150	Overloaded. Upgrade 2012.	No zoning

Source: Information from Kilkenny County Council Water Services as at March 9<sup>th</sup>, 2011

**Future requirements**

The objective of this Variation is to bring the County Development Plan, and subsequently, a number of Local Area Plans, into line with the Regional Planning Guidelines. This will entail a reduction in the amount of land available for development in each settlement. The extent and level of the remaining zoned land availability will very much depend on the water services available. Of the fifteen settlements being addressed by this variation, nine will retain zoning. The capacity in water services for all settlements is summarised below.

### Summary of water services in settlements covered by Variation 2

Settlement	Water supply capacity	Waste water capacity	Proposal under variation
Ballyhale	At capacity	WWTP due to be upgraded end of 2012 (shared plant with Knocktopher)	No zoning
Ballyragget	Capacity exists	Capacity available	No zoning
Bennettsbridge	At capacity	Overloaded. Upgrade post 2013 & funding dependant.	Revised zoning and phasing
Freshford	Limited spare capacity	Overloaded. Upgrade planned 2012 – funding dependant	Revised zoning and phasing
Goresbridge	Supply volumes are inadequate to meet any further development.	Overloaded. Upgrade funding dependant.	Revised zoning and phasing
Inistioge	Limited additional capacity	Overloaded. Upgrade funding dependant.	No zoning
Kells	At capacity	Overloaded. No immediate plans for upgrade.	Revised zoning and phasing
Kilmacow	Capacity exists	New plant. Capacity available.	Revised zoning and phasing
Knocktopher	At capacity	WWTP due to be upgraded end of 2012 (shared plant with Ballyhale)	No zoning
Mooncoin	Capacity exists	Capacity available	No zoning
Mullinavat	Capacity exists	Overloaded. Upgrade post 2013 & funding dependant.	Revised zoning and phasing
New Ross (Environs)	Capacity exists	New plant in Co. Wexford. Design PE represents capacity reserved for Kilkenny County Council. Capacity available	Revised zoning and phasing
Slieverue	Capacity exists	New Waterford City plant at Belview. Design PE represents capacity reserved for Kilkenny County Council for Waterford City Environs and Slieverue. Capacity available.	Revised zoning and phasing
Stoneyford	At capacity	Overloaded. Upgrade funding dependant.	Revised zoning and phasing
Urlingford	At capacity	Overloaded. Upgrade 2012.	No zoning

As can be seen, six settlements (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford) do not have spare capacity available in both water supply and waste water treatment services. For these six settlements, this variation will reduce the level of land available for development, and a policy will be inserted in Chapter 9, section 9.11 to state that:

*Any significant additional development in the following LAPs as included in Variation 2, Core Strategy (Bennettsbridge, Freshford, Goresbridge, Kells, Mullinavat and Stoneyford), is viewed premature pending the upgrade of the necessary water services infrastructure.*

## Finding of no significant effects report

- **Name of project or plan:**

Variation 2 of Kilkenny County Development Plan 2008-2014

- **Name and location of Natura 2000 site:**

Site Name	SAC Site Code	SPA Site Code	Sites within 5/10/15km of Kilkenny county boundary		
<u>In County Kilkenny</u>					
Cullahill Mountain	000831	-----			
Hugginstown Fen	000404	-----			
Galmoy Fen	001858	-----			
Spa Hill & Clomangtah Hill	000849	-----			
The Loughans	000407	-----			
Thomastown Quarry	002252	-----			
Lower River Suir	002137	-----			
River Barrow & Nore	002162	-----			
River Nore	002162	0004233			
<u>Adjacent Counties:</u>			5km	10km	15km
Ballyprior Grassland	002256	-----	x	x	√
Blackstairs Mountain	000770	-----	√	√	√
Comeragh Mountains	001952	-----	x	x	√
Tramore Dunes and Backstrand	000671	004027	x	√	√
Bannow Bay	000697	004033	x	x	√
Slaney River Valley	000781	-----	x	√	√
Mid-Waterford Coast SPA	-----	004193	x	x	√

- **Description of the project or plan:**

Draft Variation 2 to the Kilkenny County Development Plan will bring the settlement strategy for the county in line with projections set out in the *Regional Planning Guidelines for the South-East Region 2010-2022*. It will retain the existing plans for Callan, Castlecomer, Thomastown, Graiguenamanagh, and Ferrybank/ Belview; these will be revised at a later date. The zoning for Kilkenny city will also be revised, and a separate appropriate assessment will be carried out for that variation to the City & Environs Development Plan 2008-2014. Local area plans that have been recently completed Piltown, Fiddown and Gowran, will be retained as the implications of the RPG's have been factored into these plans.

Where the local area plan has expired a map will be included in the County Development Plan for a development boundary for these settlements, no zonings will be retained. For the other settlements a substantial area of residential lands will be allocated for phase 2 development, and will not be released for development within the life of the plan.

- **Is the project or plan directly connected with or necessary to the management of the site (provide details)?**

The draft Variation is a spatial planning framework for County Kilkenny and is not directly connected to the management of any Natura 2000 sites.

- **Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?**

The draft variation is set within the framework of higher level plans including the existing County Development Plan and the National Spatial Strategy and Regional Planning Guidelines.

The proposed Core Strategy will influence investment programmes of various sections of the Council such as water services and roads. It takes into account the Council's *Water Services Investment Programme 2010-2012; Needs Assessment 2009*.

As the draft Variation will facilitate reduced levels of growth than previously envisaged under the Kilkenny County Development Plan 2008-2014, the potential for significant effects on the Natura 2000 sites within or adjoining the county have been reduced.

### **The assessment of significance of effects**

- **Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.**

The draft Variation will influence investment programmes of various sections of the Council such as water services and roads. It takes into account the Council's *Water Services Investment Programme 2010-2012; Needs Assessment 2009*.

The draft variation is set within the framework of higher level plans including the existing County Development Plan and the National Spatial Strategy and Regional Planning Guidelines. As the draft Variation will facilitate reduced levels of growth than previously envisaged under the Kilkenny County Development Plan 2008-2014, the potential for significant effects on the Natura 2000 sites within or adjoining the county will be reduced. The primary areas for potential significant effects come from possible encroachment on sites of new development or ground water contamination, pollution from inadequately treated waste from treatment plants or ground water abstractions affecting water-dependent sites. The county development plan contains existing policies for the conservation and protection of Natura 2000 sites, and also for the protection of non-designated sites; however the draft Variation proposes increased protection for Natura 2000 sites with particular regard to projects which have the potential for significant effects on the protected site or its nature conservation objectives.

- **Explain why these effects are not considered significant.**

Policies in the existing Kilkenny County Development Plan 2008-2014, together with the proposed policies in Variation 2 of the plan, provide for the protection and conservation of Natura 2000 habitats, animal and bird species.

- **List of agencies consulted: provide contact name and telephone or e-mail address.**

National Parks and Wildlife Service, imi Conroy, Conservation Ranger  
jimi.conroy@npws.ie

- **Response to consultation**

Meeting held with NPWS Conservation Ranger in March which highlighted issues to be considered as part of the assessment. In addition this report will be forwarded to the National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government.

### **Data collected to carry out the assessment**

- **Who carried out the survey**

Kilkenny County Council, Forward Planning Section.

- **Sources of Data**

Department of Environment, Heritage and Local Government; European Commission; Kilkenny County Council; National Parks and Wildlife Service.

- **Level of assessment completed**

Desktop studies

- **Where can the full results of the assessment be accessed and viewed**

Council Office: Planning Counter, Kilkenny County Council, County Hall, John's Street, Kilkenny.  
Website: [www.kilkennycoco.ie](http://www.kilkennycoco.ie)