

Natura Impact Report
for Kilkenny County
Development Plan 2014-2020
Appropriate Assessment (AA)



Planning Department
Kilkenny County Council
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1. Introduction

The *Planning and Development Acts, 2000 – 2013* require a Planning Authority to make a County Development Plan (CDP) for its functional area every six years. The Kilkenny County Development Plan 2014-2020 (referred to in this report as the Plan) covers a geographical area of 2,062km², with a county population of 95,419 (CSO, 2011). The plan is comprised of a written statement and maps, and sets out the overall strategy for development, and a Core Strategy, for the proper planning and sustainable development of the county.

A Strategic Environmental Assessment (SEA) has been undertaken to assess the impacts of the Plan on a number of environmental considerations including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, landscape and the interrelationship between these considerations, whenever applicable.

This Natura Impact Report sets out information on the assessment and process of collating data and finding of potential significant impacts on the conservation objectives of any Natura 2000 sites within or within the sphere of influence of the Plan in accordance with Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC, (November, 2001). It also sets out, where necessary mitigation measures to preclude negative effects. The impacts assessed include the indirect and cumulative impacts of approving the plan, considered with any current or proposed activities, developments or objectives impacting on the site.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) form an EU-wide network of sites known as Natura 2000. In Ireland, Natura 2000 sites include candidate Special Areas of Conservation (cSAC), Special Protection Areas (SPA), and proposed Special Protection Areas (pSPA); SACs pertain to habitats in Annex I and species listed in Annex II of the Habitats Directive, while SPAs relate to the protection and conservation of birds and their habitats under Annex I of the Birds Directive. The conservation objectives of particular Natura 2000 sites have been assigned by the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht; these are the objectives or aims which have been put in place in order to maintain or restore the favourable conservation status or condition of the Annex I habitat or Annex I or II species for which the designated or classified site has been selected.

1.1 Legislative Background & Guidelines

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*.

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, including development 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*. Section 57 of the *Planning and Development Act 2010* amends the *Planning and Development Act 2000* by the inclusion of Part XAB relating to Appropriate Assessment. The *European Communities (Birds and Natural Habitats) Regulations 2011* is a revised transposition of the Birds and Habitats Directives into Irish law and addresses ECJ Judgments C-183/05 & C-418/04; these regulations set out the strict protection of sites designated to protect wild birds of resident and migratory species and their habitats (Special Protection Areas) and protect the habitats of other species of fauna, flora, and to protect specified habitat-types.

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’.

1.2 Methodology of the Appropriate Assessment

This Habitats Directive Assessment for the *Kilkenny County Development Plan 2014 – 2020* has been informed by the legislative and guidance framework as set out in Section 1.1 above. The scope of the Assessment is confined to the effects on the internationally important habitats and species for which the site is classified. The level of detail of the Assessment is for that of a development plan, not a project. The determination of impacts is with regard to those objectives which may have significant effects on site integrity for the designated species and habitats.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. The assessment has followed the staged approach set out in *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 and *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*, DEHLG, 2009, as follows:

- **Stage One – Screening:**
Process to identify the likely impacts on the integrity of a Natura 2000 site, having regard to its conservation objectives, 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 & 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.

Screening

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: Description of Plan and plan area characteristics

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

Step 3: Assessment of likely effects – direct, indirect and cumulative that have the potential for significant effects on the Natura 2000 site.

Step 4: Screening conclusion and statement.

Guidance in relation to screening:

- Any draft land use plan proposed under the *Planning and Development Acts 2000-2012* must be screened for potential impact on Natura 2000 sites.
- Screening can be used to establish which policies and objectives have potential to have significant effects, and ones that require further attention at AA stage.
- Screening should include any Natura 2000 sites within the likely zone of impact of the plan; a distance of 15km is recommended.
- 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.
- The screening assessment should be carried out in the absence of any consideration of mitigation measures that form part of a project or plan.
- 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.

1.3 Consultation

Scoping for the Screening of the Kilkenny County Development Plan 2014-2020 was initiated in August 2012.

This followed on from a meeting held with the NPWS Conservation Ranger in March 2011 to flag general issues of concern for the Natura 2000 network within County Kilkenny in relation to the preparation of a Variation 2 (Core Strategy) to the Kilkenny County Development Plan 2008-2014. The issues highlighted at that meeting included:

- Water quality and adequate treatment of wastewater.
- Cumulative Effects
- Effects particularly 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.

An informal conversation was held with the Regional Ecologist Dr. Linda Patton on 5th September, 2012 in relation to the process and examples of best practice in relation to Appropriate Assessment.

A written response received from the Department of Arts, Heritage and the Gaeltacht was received on 13th July 2012 in relation to SEA Scoping which sets out the following guidance in relation to the Appropriate Assessment:

Please note that the draft Plans should be screened for appropriate assessment. The Departmental guidance document on Appropriate Assessment is available on the NPWS web site at

<http://www.npws.ie/media/npws/publications/codesofpractice/AA%20Guidance%2010-12-09.pdf>.

We also refer you to the EU Commission guidance entitled "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" which can be downloaded from

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf.

It is particularly important that the appropriate assessment procedure, commencing with stage 1 screening, should take place in consultation with the teams working on the draft Plan and SEA as each process can help inform the other to ensure that the objectives and policies in the draft Plan will have no significant effects on any Natura 2000 site. The appropriate assessment should examine the effects of policies, objectives and any indicative maps or zonings, as well as cumulative impacts with other plans and projects both within and outside of the Plan area. In order to carry out the appropriate assessment you will need to collect information about the relevant Natura 2000 sites including their conservation objectives. These may be available on our web site www.npws.ie or can be obtained by requesting them by completing the data request form on our website at

<http://www.npws.ie/media/npws/publications/Data%20request%20form.doc>.

We recommend that you consult with other relevant Local Authorities to determine if there are any projects or plans which, in combination with this proposed Plan, could impact on any Natura 2000 sites.

Kindly forward any further information received; or in the event of a decision being made a copy of same should be forwarded to the following address as soon as it issues: The Manager, Development Applications Unit, Department of Arts, Heritage and the Gaeltacht.

The EPA submitted an 'EPA SEA Scoping Submission to the Kilkenny County Development Plan 2014-2020' on 12th March 2012, part of which relates to the preparation of an Appropriate Assessment, as follows:

You are referred to the requirements of Article 6 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, the Habitats Directive. Appropriate Assessment, in accordance with the Directive, is required for:

“Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have 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 sites conservation Objectives...”. The LA should consult with the National Parks and Wildlife Service (NPWS) with regard to screening of the Plan for Appropriate Assessment. Where Appropriate Assessment is required, any findings or recommendations should be incorporated into the SEA Environmental Report and Plan, as appropriate. In order to determine the requirement for an Appropriate Assessment the following Guidance is referenced.

European Commission, 2000. Managing Natura 2000 Sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

European Commission, 2002. 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

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

National Parks and Wildlife Service, 2009. Appropriate Assessment of Plans and Projects in Ireland

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

National Parks and Wildlife Service, Natura 2000 Screening Protocol – Water Service Plans and Projects <http://www.npws.ie/en/>

Informal consultation was taken out with NPWS District Conservation Officer in relation to the draft objectives of the plan and the advice given has been taken on board in relation to the importance of the Invasive Species Regulations and that all plans and project that have the potential to impact on a Natura 2000 site should be AA screened and this should be flagged for a number of the plans/projects listed (such as the Nore Linear Park and Local Area Plans), and potential for impacts on species and habitats outside of the designated Natura 2000 site boundaries.

A submission was received during the pre-draft consultation period from An Taisce stating that the plans should be subjected to a Strategic Environmental Assessment and Appropriate Assessment.

1.3.1 Draft Development Plan

The Draft County Development Plan was placed on public display from the 14th of June to the 23rd of August 2013. The Draft Plan was referred to all the Statutory Authorities, including the Department of Environment, Community and Local Government, the Department of Arts, Heritage and the Gaeltacht and adjoining Local Authorities. Submissions were received in relation to the Draft Plan and the Natura Impact Report from the EPA and the Department of Arts, Heritage and the Gaeltacht. These submissions were considered in the Manager's Report of 29th November 2013, see extract below. The Department responsible for Environment did not make a recommendation for any changes to be made to the NIR.

Submission D23a – Department of Arts, Heritage and the Gaeltacht

Summary of Issues raised:	Manager’s Response
<p>13) The version number and date of any conservation objectives should be given. 14) In place of the 15km distance from the county boundary, the NIR should use a catchment basis for rivers. 15) The font size should be increased.</p>	<p>13) Pg. 24 of the County NIR states the conservation objectives for the River Barrow and Nore cSAC. In the interests of clarity the version number and date will be stated. 14) The NIR should be amended to take a catchment approach for rivers. 15) Noted, this will be changed in the final version.</p>

Recommended change:

13) Amend the title of Table 2.2.5.1 to clarify the site code and name for the River Nore SAC as follows: Site Code 002162, *Version 1.0, dated 19th July 2011.*

14) Amend NIR to take account of river catchments by including following text in Section 2.2.1 and reference to Hook Head cSAC throughout NIR:
‘It is noted that this 15km buffer is commonly, but somewhat arbitrarily, applied in AA. It can often be appropriate for AA’s to go beyond this buffer. In County Kilkenny, this has been done by ensuring that potential effects that could result on European sites downstream of the Plan area are considered.
The potential for any impacts on downstream sites from activities within the Plan Area was captured by considering sites including the River Barrow and Nore cSAC, and the Lower River Suir cSAC (and associated SPAs). In addition to the consideration of these sites within the 15km buffer, Hook Head cSAC has also been included in Screening but potential for significant impacts has been ruled out and so the site has been screened out of Stage 2.’

15) Change font size of final NIR report.

Submission d13a Environmental Protection Agency

Summary of Issues raised	Manager’s Reponse
<p>27) Consideration should be given to the EU guidance in relation to ‘Undertaking non-energy extractive activities in accordance with Natura 2000 requirements’ in Section 3.5.3.3. Extractive industries. 34) There would be merit in summarising how the SEA, FRA and AA have influenced the plan.</p>	<p>27) The appropriate location for a reference to this document would be in the text of the Draft Plan itself, in Section 6.4.2. This reference will be added in. 34) The influence of the SEA and SFRA is noted in Section 7 of the Environmental Report, however this section will be expanded. The NIR contains detail on how the AA has influenced the plan.</p>

Recommended change:

27) Add reference to [‘Undertaking non-energy extractive activities in accordance with Natura 2000 requirements’](#) in Section 6.4.2 Development management standards of the Draft Plan.

34) Expand Section 7 of the Environmental Report to clarify the influence of the SEA and FRA on the Plan, by including following text:

7 Mitigation Measures

Mitigation took place through the consideration of alternatives, as environmental considerations (as outlined in Chapter 3) were communicated to the Planning team to enable them to make an informed choice as to which alternative was put before the Members of the Council. Mitigation also

took place through the Strategic Flood Risk Assessment, where land was rezoned to ensure no inappropriate uses would be considered on land which was subject to flood risk. *A detailed description of all the zoning changes as a result of the SFRA is included in Section 2 of the SFRA, see Appendix 1.*

7.1 Mitigation of environmental problems as identified

Section 3 of this report set out the current state of the environment, and a number of environmental problems were identified. *As a result of the process of SEA, specific mitigation measures have been included in the Plan to address these problems as follows:*

1.3.2 Proposed Amendments to the Draft Plan

The proposed amendments to the Draft Plan, Environmental Report and NIR were placed on public display from the 14th of February to the 14th of March 2014. The proposed amendments were referred to all the Statutory Authorities, including the Department of Environment, Community and Local Government, the Department of Arts, Heritage and the Gaeltacht and adjoining Local Authorities. No submissions were received in relation to the amendments to the NIR specifically (see Manager's Report of 11th April 2014).

1.4 Relationship between Appropriate Assessment process and the Plan

Appropriate Assessment (AA) needs to be fully integrated with the various stages of the development plan process in order to ensure that the ecological implications of the plan do not impact upon any areas designated as Natura 2000 sites.

As the AA process has been managed by part of the Forward Planning team, interaction has occurred from the early stages of writing of the draft plan to impress the importance of protection of the Natura 2000 network within the county and that the plan should be formulated to avoid adverse impacts on these sites. In relation to the smaller towns and villages the AA has informed the plan as it has been developed, and informed decisions relating the proposed settlement development boundaries in order to avoid encroachment and impacts on the designated site boundaries and on feeder streams into the Nore SAC. In addition the Strategic Environmental Assessment process has been taken into account in the appropriate assessment process.

The screening of objectives and the assessment of objectives in the context of mitigation measures and potential impacts of the designated sites, is an iterative process throughout each stage of the plan-making process.

2. Stage 1 – Screening

2.1 Brief Description of the Plan

The County Development Plan 2014-2020 is prepared under the provisions of the Planning and Development Acts 2000-2012 to develop and improve the county in a sustainable manner.

This Plan will cover the county as a whole with a geographical area of 2,062km², and also a number of settlements in detail. Twelve settlements will be subject to a development boundary with associated policies: Ballyhale, Ballyragget, Freshford, Goresbridge, Inistioge, Kells, Knocktopher, Mooncoin, Mullinavat, Slieverue, Stoneyford, and Urlingford. Three settlements will be subject to a zoning map under this Plan: Bennettsbridge, Kilmacow and New Ross Environs. A separate Development Plan will cover Kilkenny City & Environs. The Plan includes objectives for the provision or facilitation of infrastructure, conservation and protection of the environment, preservation of the character of the landscape and identification, assessment, protection, management and planning of landscapes.

The contents are best described through a list of the chapter headings:

1. Introduction
2. Demographic and Socio-Economic Trends
3. Core Strategy
4. Economic Development
5. Housing and Community
6. Rural Development
7. Recreation, Tourism & the Arts
8. Heritage
9. Infrastructure
10. Renewable Energy Strategy
11. Transport
12. Requirements for Developments

As the Core Strategy included in Chapter 3 of the Plan outlines, the focus for new development will be in the main settlements of Kilkenny City, Ferrybank (as part of the Waterford Gateway) and the four District Towns (Callan, Castlecomer, Graiguenamanagh and Thomastown) – local area plans have been made for these towns and will be reviewed after the adoption of this plan. The estimated population increase amongst those settlements is 4,136. The estimated population increase for the remainder of the county (all other settlements plus rural areas) is 5,885.

The main objectives and ethos of the Plan can be summarised in the Council’s Mission Statement (section 1.7) as follows:

“Kilkenny Local Authorities aim to work in partnership with the people of Kilkenny and relevant agencies to deliver quality services and to promote sustainable economic, social and cultural development for current and future generations.”

The Plan provides a land use framework for the sustainable development of County Kilkenny and will set the strategic context for any lower-tier plans, such as Local Area Plans to be prepared in the county. In its making, the Plan has regard to all relevant planning and environmental policy and legislation including European Union directives, Ministerial guidelines and other national, regional and county plans and policies. County Kilkenny shares its county borders with counties Carlow, Wexford, Waterford, Tipperary and Laois. In particular, the South East Regional Planning Guidelines (RPGs) provide a context for the making of this Plan.

The RPGs allocated a projected population growth figure for the county, which must be adhered to. This population projection is translated into a housing land requirement, or a ‘pot’ of zoned land, which must be distributed in the county. The RPGs have specified what allocation must be directed to Kilkenny as a hub and Ferrybank as part of the Waterford gateway, but other than that the Council has discretion to distribute the remainder. The Core Strategy of the Plan sets out how all of the population allocation is distributed.

2.1.1 Projects and Plans with potential for ‘in combination’ effects

Some other plans and projects which may pose in-combination effects include:

Table 2.1.1: Projects and Plans with potential for ‘in combination’ effects

<i>Strategic Planning</i>	<i>Anticipated effects</i>
National Development Plan, Ireland 2007–2013	Potential for positive and negative effects on integrity of Natura 2000 sites
Our Sustainable Future – A Framework for Sustainable Development for Ireland	Potential for positive and negative effects on integrity of Natura 2000 sites
National Spatial Strategy 2002– 2020	Potential for positive and negative effects on integrity of Natura 2000 sites
National Planning Guidelines	Potential for positive and negative effects on integrity of Natura 2000 sites
Rural Development Programme	Potential for positive effects on Natura 2000 sites; incentives for landowners with land within or adjacent to Natura 2000 sites
Regional Planning Guidelines for the South-East Region (2010–2022)	No anticipated negative impacts on integrity of Natura 2000 sites
Kilkenny City & Environs Development Plan 2014-2020	Potential for positive and negative effects on integrity of Natura 2000 sites
Ministerial Guidelines and Directives: Architectural Heritage Protection, Childcare Facilities, Development Plans, Landscapes, Retail Planning, Strategic Environmental Assessment, Sustainable Residential Development in Urban Areas and Sustainable Rural Housing, The Planning System and Flood Risk Management.	Potential for positive and negative effects on integrity of Natura 2000 sites
Kilkenny 2002-2012, A Strategy for Economic, Social and Cultural Development	Potential for positive and negative effects on integrity of Natura 2000 sites

Smarter Travel, A sustainable Transport Future, A new transport policy for Ireland 2009-2020	Potential for positive and negative effects on integrity of Natura 2000 sites
Water Quality	
South Eastern River Basin Management Plan 2010	Positive effects on some Natura 2000 sites
EU Water Framework Directive	Positive effects on some Natura 2000 sites
South East River Basin Management Plan (water Matters) 2009-2015	Positive effects on some Natura 2000 sites
Freshwater Pearl Mussel Nore River Basin Management Plan;	Positive effects on some Natura 2000 sites
National Action Plan for Sustainable Use of Pesticides	Positive effects on some Natura 2000 sites
Invasive Species	
EU Strategy on Invasive Alien Species	Positive effects on Natura 2000 sites
Climate Change	
National Climate Change Strategy 2007-2012	Positive effects on Natura 2000 sites
Economics/ Agri-food and fisheries	
Food Harvest 2020, A vision for Irish agri-food and fisheries	Positive effects on Natura 2000 sites
Biodiversity	
EU 2020 Biodiversity Strategy	Positive effects on Natura 2000 sites
County Kilkenny Draft Biodiversity Action Plan	Positive effects on Natura 2000 sites
County Kilkenny Heritage Plan	Positive effects on Natura 2000 sites
Adjoining County Development Plans	
County Carlow Development Plan 2009 – 2015	Potential for positive and negative effects on integrity of Natura 2000 sites
Wexford County Development Plan 2013-2019	No anticipated negative impacts on integrity of Natura 2000 sites
Waterford County Development Plan 2011-2017	No anticipated negative impacts on integrity of Natura 2000 sites
Laois County Development Plan 2012-2018	No anticipated negative impacts on integrity of Natura 2000 sites
Waterford City Development Plan 2013-2019	No anticipated negative impacts on integrity

	of Natura 2000 sites
North Tipperary County Development Plan 2010-2016	No anticipated negative impacts on integrity of Natura 2000 sites
South Tipperary County Development Plan 2009-2015 Appropriate Assessment	No anticipated negative impacts on integrity of Natura 2000 sites

With the exception of the Carlow Development Plan 2009-2015, the other development plans for the surrounding counties have undergone the appropriate assessment screening process and appropriate assessment where required and are therefore deemed not to have potential for negative effects on Natura 2000 sites. The Carlow Development Plan 2009-2015 has undergone a Strategic Environmental Assessment.

The Regional Planning Guidelines for the South-East Region (2010–2022) has been screened in accordance with Article 6 of the Habitats Directive; as this plan translates the objectives and policies of national and higher level plans as appropriate to the region it is considered that some of the potential for negative impacts of the higher level plans for the South East Regional has been addressed through the mitigation measures that form part of the regional planning guidelines.

The Kilkenny County Development Plan and other plans and projects in combination have potential to significantly affect the Natura 2000 site(s) in their vicinity. Since a County Development Plan sets the framework for development and proper planning within the county, there is potential for impacts on a number of environmental considerations including on the county’s landscape, biodiversity, water quality and infrastructure, soil and geology, air and noise elements and material assets such as water and wastewater infrastructure, and interrelationships between elements. While these will be addressed in the Strategic Environmental Assessment (SEA) of the Plan, the policies and objectives of the Plan were assessed for their potential significant effects on the integrity of Natura 2000 sites, by virtue of the sites’ conservation objectives.

2.2 Natura 2000 Sites

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).

It is noted that this 15km buffer is commonly, but somewhat arbitrarily, applied in AA. It can often be appropriate for AA’s to go beyond this buffer. In County Kilkenny, this has been done by ensuring that potential effects that could result on European sites downstream of the Plan area are considered.

The potential for any impacts on downstream sites from activities within the Plan Area was captured by considering sites including the River Barrow and Nore cSAC, and the Lower River Suir cSAC (and associated SPAs). In addition to the consideration of these sites within the 15km buffer, Hook Head cSAC has also been included in Screening but potential for significant impacts has been ruled out and so the site has been screened out of Stage 2.

2.2.2 Natura 2000 sites in Kilkenny and adjoining counties

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

Table 2.2.2: Natura 2000 sites in County Kilkenny & adjoining counties¹

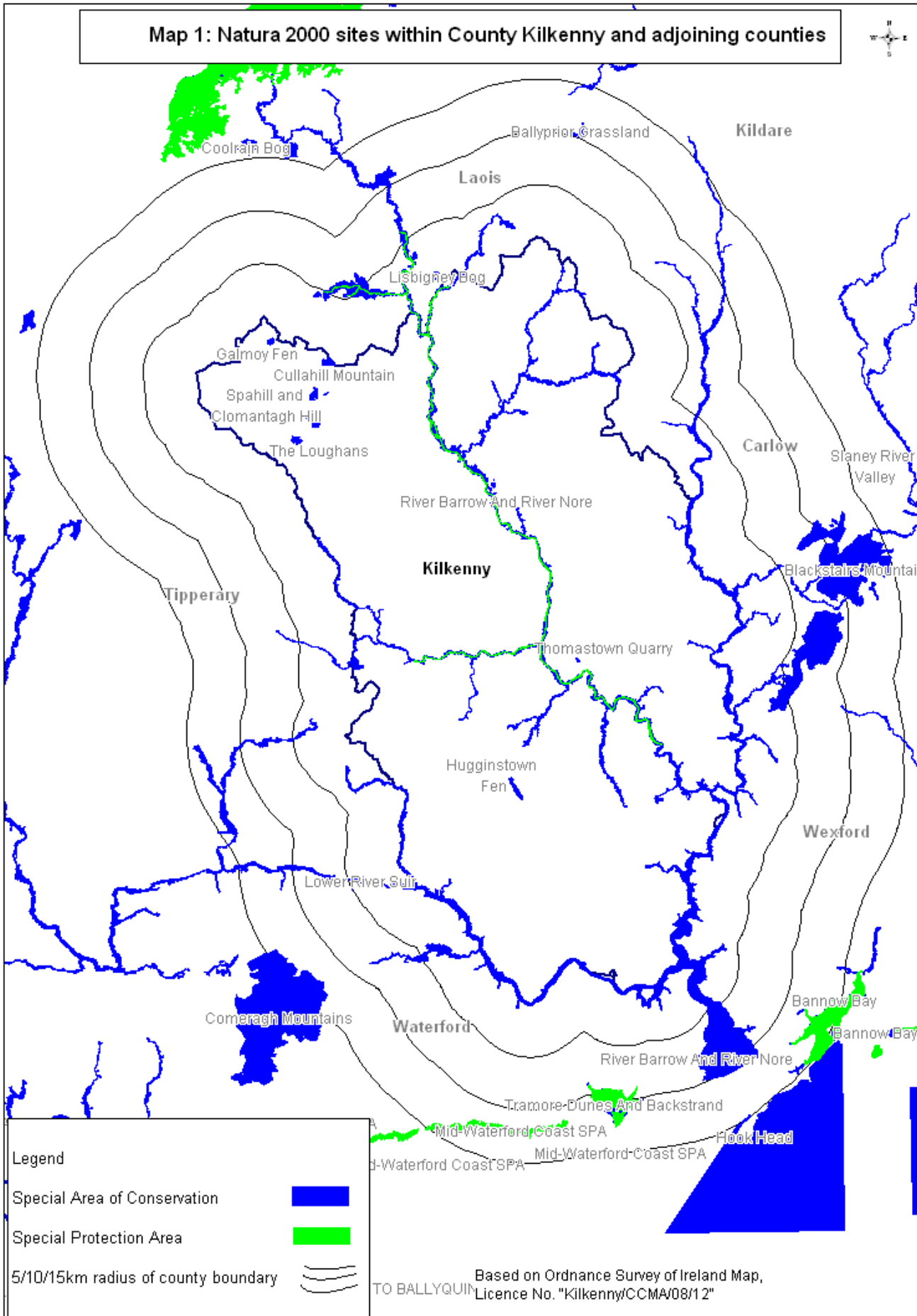
Site Name	cSAC Site Code	SPA Site Code	Sites within 5/10/15km of Kilkenny county boundary		
			5km	10km	15km
Cullahill Mountain	000831*	-----			
Hugginstown Fen	000404*	-----			
Galmoy Fen	001858	-----			
Spa Hill & Clomantagh Hill	000849	-----			
The Loughans	000407	-----			
Thomastown Quarry	002252	-----			
Lower River Suir	002137	-----			
River Barrow & Nore	002162	-----			
River Nore	002162	0004233			
Adjacent Counties:			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	√

* Denotes site for which either a Conservation Plan or a Conservation Statement has been prepared.

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 derived from the NPWS Protected Site Synopses available on <http://www.npws.ie/en/ProtectedSites/>.

Tables 2.2.5.1 and 2.2.5.2 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.

¹ Hook Head cSAC has also been included – See Section 2.2.1



2.2.3 Brief Description of the Natura 2000 sites

2.2.3.1 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 Mussel², 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. Salt meadows 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.

Land use 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.

² The Draft Freshwater Pearl Mussel Sub-Basin Management Plan for the Nore catchment (in addition to the Clodiagh, Mountain, Ballymurphy and Aughavaud catchments) is under preparation.

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 SPA (0004233)

The River Nore SPA is a long, linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Instioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co. Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island, Co. Kilkenny. The site includes the river channel and marginal vegetation.

For a large part of its course the River Nore traverses Carboniferous limestone plains; it passes over a narrow band of Old Red Sandstone rocks below Thomastown.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher. The River Nore SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

A survey in 2010 recorded 22 pairs of Kingfisher (based on 16 probable and 6 possible territories) within the SPA. Other species which occur within the site include Mute Swan (35), Mallard (267), Cormorant (14), Grey Heron (45), Moorhen (14), Snipe (17) and Sand Martin (1,029) – all figures are peak counts recorded during the 2010 survey.

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.

2.2.3.2 Sites within 15km of the County Kilkenny border³

- 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.

³ Hook Head cSAC has also been included – See Section 2.2.1

- 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 land use 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. Long shore 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 Bartailed 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 salt marshes, 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.

Land use 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 land uses 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.

- Hook Head cSAC (000764)

The site of conservation interest at Hook Head comprises an area of marine subtidal reefs to the south and east of the Hook Head Peninsula and includes the sea cliffs from Hook Head to Baginbun and Ingard Point. The peninsula forms the eastern side of Waterford Harbour, while to the east it adjoins the estuary mouth of Bannow Bay. Hook Head itself is composed of Carboniferous limestone overlain by Devonian Old Red Sandstone and is palaeontologically of international importance. The site contains three habitats listed under the EU Habitats Directive, i.e. large shallow inlets and bays, reefs and sea cliffs. In summary, this site is of conservation importance for its subtidal reef and

shallow bay communities, and their diversity of species, as well as for the vegetated sea cliffs. These habitats are listed under the EU Habitats Directive. The rocky coastline is also important for breeding Ravens, Choughs and Peregrines. The latter two are listed on Annex I of the EU Birds Directive.

2.2.5 Natura Sites, Qualifying Interests and Threats to Site Integrity

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 (the Conservation Status of the qualifying interests is set out in Appendix 1, and discussed briefly in section 2.2.6). In writing this section the information available from the National Parks and Wildlife Section has been examined, including the Site Synopsis, Natura 2000 Standard Data form, Conservation Objectives, and where available the Conservation Plan or Conservation Statement for the site. In addition *The Status of EU Protected Habitats and Species in Ireland 2008* has been consulted along with the information available at the time of writing this report for the conservation status of habitats and species examined under the third report by the NPWS for the period 2007-2013.

2.2.5.1 Natura Sites in County Kilkenny, Qualifying Interests and Threats to Site Integrity

Table 2.2.5.1: Natura 2000 sites within County Kilkenny, Qualifying Interests and Threats to Site Integrity

County Kilkenny		cSpecial Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
000831 Cullahill Mountain July 2005	Priority status - Listed in Annex I of HD <ul style="list-style-type: none"> ▪ Semi-natural dry grasslands and scrubland facies on substrates (<i>Festuco Brometalia</i>)(*important orchid sites) (6210) 	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: [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(* important orchid sites)	Grazing Ownership Agricultural Practices
000404 Hugginstown Fen Version 1.01 2009	Listed in Annex I of HD <ul style="list-style-type: none"> ▪ Alkaline fens (7230) 	Objective 1: To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status; Alkaline Fens (36% area of the site). Objective 2: To maintain the extent, species richness and diversity of the entire site. Objective 3: To establish effective liaison and co-operation with landowners,	Fertiliser pollution Grazing

		legal users and relevant authorities. Note: The site is deemed to have good conservation value.	
001858 Galmoy Fen Version 3.0 18 th July 2011	Listed in Annex I of HD ▪ Alkaline fens (7230)	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: [7230] Alkaline fens	Peat mining Draining for cropland Infilling Fertiliser pollution Eutrophication
000849 Spa Hill & Clomangtah Hill	Priority status - Listed in Annex I of HD ▪ Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites) (6210)	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: [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites)	Abandonment of traditional agricultural practices or land reclamation. Intensive or very low grazing levels. The use of artificial fertiliser.
000407 The Loughans Version 3.0 18 th July 2011	Priority status - Listed in Annex I of HD ▪ Turloughs (3180)	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: [3180] * Turloughs	Nutrient enrichment Inappropriate grazing regimes
002252 Thomastown Quarry Version 3.0 18 th July 2011	Priority status - Listed in Annex I of HD ▪ Petrifying springs with tufa formation (<i>Cratoneurion</i>) (7220)	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: [7220] * Petrifying springs with tufa formation (<i>Cratoneurion</i>)	Land reclamation Drainage Abandonment
002137 Lower River Suir Version 3.0 18 th July 2011	Priority status - Listed in Annex I of HD: ▪ 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) ▪ Yew Woodlands - <i>Taxus baccata</i> woods	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: [1029] <i>Margaritifera margaritifera</i> [1092] <i>Austropotamobius</i>	▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage. ▪ Restricted distribution and lack of suitable habitats for expansion, Invasive aliens. ▪ Overgrazing by sheep

	<p>of the British Isles (91J0) Listed in Annex I of HD:</p> <ul style="list-style-type: none"> ▪ Atlantic salt meadows (Glauco-Puccinellietalia maritima) (1330) ▪ Mediterranean salt meadows (Juncetalia maritimi) (1410) ▪ Floating river vegetation - water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation (3260) ▪ Old sessile oak woods with Ilex and Blechnum in British Isles (91A0) ▪ Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430) <p>Listed on Annex II of HD:</p> <ul style="list-style-type: none"> ▪ Sea Lamprey (<i>Petromyzon marinus</i> - 1095) ▪ River Lamprey (<i>Lampetra fluviatilis</i> - 1099) ▪ Brook Lamprey (<i>Lampetra planeri</i>- 1096) 	<p><i>pallipes</i> [1095] <i>Petromyzon marinus</i> [1096] <i>Lampetra planeri</i> [1099] <i>Lampetra fluviatilis</i> [1103] <i>Alosa fallax</i> [1106] <i>Salmo salar</i> (only in fresh water) [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1355] <i>Lutra lutra</i> [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] [6430] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91E0] * Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91J0] * <i>Taxus baccata</i> woods of the British Isles</p>	<p>or cattle, and erosion. Presence of common cordgrass invasive species. Loss of habitats due to infilling and reclamation.</p> <ul style="list-style-type: none"> ▪ Over-grazing by cattle or sheep ▪ Infilling and reclamation. ▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species. ▪ Invasive alien species, sub-optimal grazing. ▪ Spread of invasive species, arterial drainage and agricultural improvement at the river edge.
<p>002137 Lower River Suir Version 3.0 18th July 2011</p>	<ul style="list-style-type: none"> ▪ Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i> - 1029) ▪ Crayfish (<i>Austropotamobius pallipes</i> - 1092) ▪ Twaité Shad (<i>Alosa fallax</i> - 1103) ▪ Atlantic Salmon (<i>Salmo salar</i>- 1106) <p>Otter (<i>Lutra lutra</i> - 1355)</p>		<ul style="list-style-type: none"> ▪ Restricted access to spawning grounds due to weirs. ▪ Channel maintenance removing silt deposits and gravel shoals. ▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.

			<ul style="list-style-type: none"> ▪ Introduction of diseases transmitted by introduced American crayfish. ▪ Restricted access to spawning grounds due to weirs. ▪ Diseases, parasites, water pollution. ▪ Road kill, fishing nets and lobster pots.
<p>002162 River Barrow and River Nore cSAC Version 1.0 19th July 2011</p>	<p>Annex I - priority habitat</p> <ul style="list-style-type: none"> ▪ 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) ▪ Petrifying springs - Petrifying springs with tufa formation (<i>Cratoneurion</i>) (7220) <p>Annex I</p> <ul style="list-style-type: none"> ▪ Old oak woodlands - Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles (91A0) ▪ Floating river vegetation - Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260) ▪ Estuary – (1130) ▪ Tidal mudflats - <i>Spartina</i> swards (<i>Spartinion maritimae</i>) (1320) ▪ <i>Salicornia</i> mudflats - <i>Salicornia</i> and other annuals colonizing mud and sand (1310) ▪ Atlantic salt meadows - (<i>Glauco-</i> 	<p>Objective: Individual Habitat and Species Objectives to maintain and/ or restore the favourable conditions of the Annex I habitats and Annex II species for which the cSAC has been selected.</p> <p>Alluvial wet woodlands - (91E0) Petrifying springs (7220) Old oak woodlands (91A0) Floating river vegetation (3260) Estuary – (1130) Tidal mudflats (1320) <i>Salicornia</i> mudflats (1310) Atlantic salt meadows (1330) Mediterranean salt meadows (1410) Dry heath (4030) Eutrophic tall herbs (6430) Sea Lamprey (1095) River Lamprey (1099) Brook Lamprey (1096) Freshwater Pearl Mussel – (1029) Nore Freshwater Pearl Mussel – (1990) Crayfish (1092) Twaite Shad (1103) Atlantic Salmon (1106) Otter (1355) Desmoulin’s Whorl Snail (1016) Killarney Fern (1421)</p>	<ul style="list-style-type: none"> ▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage. ▪ Land reclamation, drainage. ▪ Invasive alien species, sub-optimal grazing. ▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species. ▪ Aquaculture, fishing, coastal development and water pollution. ▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species. Hard coastal defence structures, sea-level rise. ▪ Invasive species, natural erosion, accretion cycles and storms. ▪ Overgrazing by sheep or cattle, and erosion. Presence of common cordgrass invasive species. Loss of habitats due to infilling and reclamation.

	<p>Puccinellietalia maritimae) (1330)</p> <ul style="list-style-type: none"> ▪ Mediterranean salt meadows (Juncetalia maritimi) (1410) 		
	<ul style="list-style-type: none"> ▪ Dry heath - European dry heaths (4030) ▪ Eutrophic tall herbs - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430) <p>Annex II</p> <ul style="list-style-type: none"> ▪ Sea Lamprey - <i>Petromyzon marinus</i> (1095) ▪ River Lamprey - <i>Lampetra fluviatilis</i> (1099) ▪ Brook Lamprey – <i>Lampetra planeri</i> (1096) ▪ Freshwater Pearl Mussel – <i>Margaritifera margaritifera</i> (1029) ▪ Nore Freshwater Pearl Mussel – (<i>Margaritifera durrovensis</i>) (1990) ▪ Crayfish – <i>Austropotamobius pallipes</i> (1092) ▪ Twaite Shad – <i>Alosa fallax</i> (1103) ▪ Atlantic Salmon – <i>Salmo salar</i> (1106) ▪ Otter – <i>Lutra lutra</i> (1355) ▪ Desmoulin’s Whorl Snail - <i>Vertigo moulinsiana</i> (1016) ▪ Killarney Fern – <i>Trichomanes speciosum</i> (1421) 		<ul style="list-style-type: none"> ▪ Over-grazing by cattle or sheep ▪ Infilling and reclamation. ▪ Afforestation, over-burning, over-grazing, under-grazing and bracken invasion. ▪ Invasive species, arterial drainage and agricultural improvement at the river edge. ▪ Weirs restricting access to spawning beds. Channel maintenance which removes silt deposits and gravel shoals used by lampreys. ▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of sever nutrient enrichment, as well as physical siltation. ▪ Poor quality of river substrate. ▪ Introduction of diseases transmitted by introduced American crayfish. ▪ Restricted access to spawning grounds due to weirs. ▪ Diseases, parasites, water pollution. ▪ Road kill, fishing nets and lobster pots. ▪ Drainage of wetlands and riparian management, spread of urban

			<p>development.</p> <ul style="list-style-type: none"> ▪ Modifications to the site's hydrology, through pollution, or woodland clearance.
County Kilkenny		Special Protection Area	
River Nore 004233 SPA Version 4.0 16 th April 2012	Kingfisher (<i>Alcedo atthis</i>)	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <i>Alcedo atthis</i> [breeding]	<ul style="list-style-type: none"> ▪ Disturbance, Water Quality, Invasive Species.

2.2.5.2 Natura 2000 sites adjacent to County Kilkenny, Qualifying Interests and Threats to Site Integrity

Adjacent Counties		Special Areas of Conservation	
Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
Ballyprior Grassland 002256 - cSAC	<p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites)[6210]</p> <p>Priority status - Listed in Annex I of HD</p>	<p>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: [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites)</p>	<ul style="list-style-type: none"> ▪ Abandonment of traditional agricultural practices or land reclamation. Intensive or very low grazing levels. The use of artificial fertiliser.
Blackstairs Mountain 000770 - cSAC	<ul style="list-style-type: none"> ▪ European dry heath (4030) ▪ Northern Atlantic wet heath with <i>Erica tetralix</i>' (4010). <p>Listed in Annex I of HD</p>	<p>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: [4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4030] European dry heaths</p>	<ul style="list-style-type: none"> ▪ All terrain vehicles (ATVs) ▪ Burning ▪ Decline of the Red Grouse Population ▪ Grazing ▪ Erosion ▪ Group water schemes

<p>Comeragh Mountains 001952 - cSAC</p>	<p>Listed in Annex I of HD</p> <ul style="list-style-type: none"> ▪ Upland oligotrophic lakes - Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> [3130] ▪ Floating river vegetation - Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] ▪ Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] ▪ European dry heaths [4030] ▪ Alpine and Boreal heaths [4060] ▪ Calcareous rocky slopes with chasmophytic vegetation [8210] ▪ Siliceous rocky slopes with chasmophytic vegetation [8220] <p>Listed in Annex II of HD</p> <p>Slender Green Feather Moss - <i>Drepanocladus (Hamatocaulis) vernicosus</i> [1393]</p>	<p>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>[1393] <i>Drepanocladus (Hamatocaulis) vernicosus</i> [3130] Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> [3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</p> <p>[4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4030] European dry heaths [4060] Alpine and Boreal heaths</p> <p>[8210] Calcareous rocky slopes with chasmophytic vegetation</p> <p>[8220] Siliceous rocky slopes with chasmophytic vegetation</p>	<ul style="list-style-type: none"> ▪ Eutrophication and species competition ▪ Eutrophication arising from agricultural practices such as overgrazing and excessive fertilization, afforestation and introduction of invasive alien species. ▪ Eutrophication, overgrazing, excessive fertilisation, afforestation and the introduction of invasive alien species. Reclamation, afforestation and burning. Overstocking through overgrazing and trampling allowing invasion by non-heath species, or exposure of peat to severe erosion.
<p>Tramore Dunes and Backstrand 000671 - cSAC</p>	<p>Listed in Annex I of HD – priority habitat</p> <ul style="list-style-type: none"> ▪ Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130] <p>Listed in Annex I of HD</p> <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide [1140] ▪ Annual vegetation of drift lines [1210] ▪ Perennial vegetation of 	<p>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>[1140] Mudflats and sandflats not covered by seawater at low tide</p> <p>[1210] Annual vegetation of drift lines</p> <p>[1220] Perennial vegetation of stony banks</p> <p>[1310] <i>Salicornia</i> and</p>	<ul style="list-style-type: none"> ▪ 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-

	<p>stony banks [1220]</p> <ul style="list-style-type: none"> ▪ Salicornia and other annuals colonizing mud and sand [1310] ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] ▪ Embryonic shifting dunes [2110] ▪ Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120] 	<p>other annuals colonizing mud and sand [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2110] Embryonic shifting dunes [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2130] * Fixed coastal dunes with herbaceous vegetation ("grey dunes")</p>	<p>native species.</p> <ul style="list-style-type: none"> ▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works, invasive species and hard coastal defence structures. ▪ 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. ▪ 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. ▪ Infilling, reclamation and embankment for agricultural purposes. Invasive species. Natural erosion, accretion cycles and storms. ▪ Overgrazing and erosion. Invasive species. Infilling and reclamation. ▪ Overgrazing, infilling and reclamation. ▪ Stabilisation, recreation. ▪ Removal of beach material, construction of coastal protection works by sand compaction caused by motorised vehicles. High visitor pressure causing trampling.
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Site code & name	Qualifying interests	Conservation Objectives	Threats to site integrity
<p>Bannow Bay</p> <p>000697 - cSAC</p>	<p>Listed in Annex I of the HD – priority habitat</p> <ul style="list-style-type: none"> ▪ Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130] <p>Listed in Annex I of the HD</p> <ul style="list-style-type: none"> ▪ Estuaries [1130] ▪ Mudflats and sandflats not covered by seawater at low tide [1140] ▪ Annual vegetation of drift lines [1210] ▪ Perennial vegetation of stony banks [1220] ▪ Salicornia and other annuals colonizing mud and sand [1310] ▪ Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330] ▪ Mediterranean salt meadows (Juncetalia maritimi) [1410] ▪ Mediterranean and thermo - Atlantic halophilous scrubs (Sarcocornetea fruticosi) [1420] ▪ Embryonic shifting dunes [2110] <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120]*</p>	<p>Conservation Objective:</p> <p>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>	<ul style="list-style-type: none"> ▪ 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. ▪ Aquaculture, fishing, coastal development and water pollution. ▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, hard coastal defence structures. ▪ 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. ▪ Interruption of coastal processes, caused by developments such as car parks and coastal defence structures. Removal of gravel, trampling, horse riding and vehicles. ▪ Infilling, reclamation, embankment for agricultural purposes. Invasive species, natural erosion, accretion cycles

			<p>and storms.</p> <ul style="list-style-type: none"> ▪ Over-grazing, erosion, invasive species, infilling and reclamation. ▪ Cattle-poaching and off-road vehicles. <p>Recreation and sand extraction, construction of coastal protection works.</p> <ul style="list-style-type: none"> ▪ Construction of coastal protection works, recreation and sand extraction. <p>Removal of beach materials, construction of coastal protection works, sand compaction by motorized vehicles.</p> <p>High visitor pressure.</p>
<p>Slaney River Valley</p> <p>000781 - cSAC</p>	<p>Annex I - priority habitat</p> <ul style="list-style-type: none"> ▪ Alluvial wet woodland - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0] <p>Annex I</p> <ul style="list-style-type: none"> ▪ Estuaries [1130] ▪ Floating river vegetation - Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260) ▪ Old oak woodlands - Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles (91A0) ▪ Mudflats and sandflats not covered by seawater at low tide [1140] <p>Annex II</p> <ul style="list-style-type: none"> ▪ Freshwater Pearl Mussel – <i>Margaritifera margaritifera</i> (1029) ▪ Brook Lamprey – 	<p>Conservation Objective:</p> <p>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>	<ul style="list-style-type: none"> ▪ Fragmentation, abundance of alien invasive species, sub-optimal grazing regimes, drainage. ▪ Aquaculture, fishing, coastal development and water pollution. ▪ Eutrophication, overgrazing, excessive fertilisation, afforestation, introduction of invasive alien species. ▪ Invasive alien species, sub-optimal grazing. ▪ Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, hard coastal defence structures. ▪ Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as

	<p><i>Lampetra planeri</i> (1096)</p> <ul style="list-style-type: none"> ▪ River Lamprey - <i>Lampetra fluviatilis</i> (1099) ▪ Twaite Shad – <i>Alosa fallax</i> (1103) ▪ Atlantic Salmon – <i>Salmo salar</i> (1106) ▪ Sea Lamprey - <i>Petromyzon marinus</i> (1095) <p>Otter – <i>Lutra lutra</i> (1355)</p>		<p>physical siltation.</p> <ul style="list-style-type: none"> ▪ Weirs restricting access to spawning beds. Channel maintenance which removes silt deposits and gravel shoals used by lampreys. ▪ Invasive species, arterial drainage and agricultural improvement at the river edge. ▪ Restricted access to spawning grounds due to weirs. ▪ Diseases, parasites, water pollution. ▪ Afforestation, over-burning, over-grazing, under-grazing and bracken invasion. ▪ Road kill, fishing nets and lobster pots.
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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"> ▪ Brent Geese - <i>Branta bernicla hrota</i> [wintering] ▪ Golden Plover - <i>Pluvialis apricaria</i> [wintering] ▪ Grey Plover - <i>Pluvialis squatarola</i> [wintering] ▪ Lapwing - <i>Vanellus vanellus</i> [wintering] ▪ Dunlin - <i>Calidris alpina</i> [wintering] ▪ Black-tailed Godwit - <i>Limosa limosa</i> [wintering] ▪ Bar-tailed Godwit - <i>Limosa lapponica</i> [wintering] ▪ Sanderling - <i>Numenius arquata</i> [wintering] 	<p>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"> ▪ <i>Branta bernicla hrota</i> [wintering] ▪ <i>Pluvialis apricaria</i> [wintering] ▪ <i>Pluvialis squatarola</i> [wintering] ▪ <i>Vanellus vanellus</i> [wintering] ▪ <i>Calidris alpina</i> [wintering] ▪ <i>Limosa limosa</i> [wintering] ▪ <i>Limosa lapponica</i> [wintering] ▪ <i>Numenius arquata</i> [wintering] ▪ Wetlands 	<ul style="list-style-type: none"> ▪ Disturbance, Water Quality, Invasive Species.
Mid-Waterford	Cormorant - <i>Phalacrocorax</i>	Objective: To maintain or	<ul style="list-style-type: none"> ▪ Development,

<p>Coast 004193 - SPA</p>	<p>carbo [breeding] Peregrine - Falco peregrinus [breeding] Herring Gull - Larus argentatus [breeding] Chough - Pyrrhocorax pyrrhocorax [breeding]</p>	<p>restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Phalacrocorax carbo [breeding] Falco peregrinus [breeding] Larus argentatus [breeding] Pyrrhocorax pyrrhocorax [breeding]</p>	<p>change in agricultural practices, agricultural abandonment, encroachment of scrub, loss of closes-ward grazing.</p>
<p>Bannow Bay 004033 - SPA</p>	<ul style="list-style-type: none"> ▪ Brent goose - Branta bernicla hrota [wintering] ▪ Shelduck - Tadorna tadorna [wintering] ▪ Pintail - Anas acuta [wintering] ▪ Oystercatcher - Haematopus ostralegus [wintering] ▪ Golden Plover - Pluvialis apricaria [wintering] ▪ Grey Plover - Pluvialis squatarola [wintering] ▪ Lapwing - Vanellus vanellus [wintering] ▪ Sanderling - Calidris canutus [wintering] ▪ Dunlin - Calidris alpina [wintering] ▪ Black-tailed Godwit - Limosa limosa [wintering] ▪ Bar-tailed Godwit - Limosa lapponica [wintering] ▪ Curlew - Numenius arquata [wintering] Redshank - Tringa totanus [wintering] 	<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"> ▪ Disturbance, Water Quality, Invasive Species.
<p>Hook Head cSAC (site code 000764) Version 1.0 21st October 2011</p>	<ul style="list-style-type: none"> • Large shallow inlets and bays. • Reefs. • Vegetated sea cliffs of the Atlantic and Baltic coasts 	<p>To maintain the favourable conservation condition of Large shallow inlets and bays in Hook Head SAC. To maintain the favourable conservation condition of Reefs in Hook Head SAC. To maintain the favourable</p>	<p>Trawling</p>

		conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in Hook Head SAC,	
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2.2.6 Conservation Status of Natura 2000 Habitats and Species

The conservation status of habitats and species within the Natura 2000 sites in County Kilkenny and in those within a 15km of the County boundaries⁴ were examined having regard to the information available from the National Parks and Wildlife Service and from Bird Watch Ireland (listed in full in Appendix 1).

The National Parks and Wildlife Service are currently in the process of producing the draft 3rd Irish Report on the implementation of the EU Habitats Directive, and are holding public consultation on the conservation status of species and habitats. At the time of writing this report the conservation status of five habitats and species were publically available and have been taken into account in this assessment. The second report (2001 – 2006) The Status of EU Protected Habitats and Species in Ireland, 2008 focused on a first assessment of conservation status of all habitats and species of Community interest. The third report (2007 – 2013) repeats the conservation status assessments undertaken in 2007; the basic structure of the assessments is the same as that in the 2nd report, but there are changes in the detail of the data requested by the European Commission. The six-yearly reports required by the Habitats Directive are intended to track improvement in the conservation status of these habitats and species since the Directive came into force in 1994.

Within County Kilkenny of the 16 types of habitats in Natura 2000 sites, the conservation status was not favourable in 2008 – with 7 habitats rated as ‘Bad’ and 9 listed as ‘Poor’, none received ‘Good’ status. The species within the sites were rated as follows – 5 ‘Bad’, 3 ‘Poor’ and 3 ‘Good’, with the Kingfisher listed on the Amber list (medium conservation concern). As per the draft 3rd report of the NPWS of the five habitats and species assessed at the time of writing the report they were reported to have the following status: 1 ‘Unfavourable Bad’, 1 ‘Unfavourable Bad- Improving’, 1 ‘Stable’, 1 Unfavourable Bad – Improving subject to maintenance of current levels of activity’, and 1 ‘Good’.

For the Natura 2000 sites examined within 15km of the county borders similar results were found. Of the habitats examined, they also mainly received unfavourable status – 10 ‘Bad’, 13 ‘Poor’ and 1 ‘Good’. The species were rated as follows – 3 ‘Bad’, 2 ‘Poor’ and 2 ‘Good’. The draft 3rd report of the NPWS the habitats and species listed were as follows - ‘Unfavourable Bad – Improving subject to maintenance of current levels of activity’, 1 as ‘Unfavourable Bad’ and 1 ‘Good’. The Birds within the SPAs were rated as 5 on the Red list (high conservation concern), 10 on the Amber list (medium conservation concern) and 2 on the Green list (not considered threatened).

The majority of habitats and species listed in Natura 2000 sites in County Kilkenny are water related; this was acknowledged during the Habitats Screening Report for Variation 2 of the Kilkenny County Development Plan 2008-2014 and the protection for Natura 2000 sites was strengthen in the plan particularly with regard to impacts on sites through hydrological pathways at sites within are geographically remote from the Natura 2000 site. The Kilkenny County Development Plan 2014-2020 has built upon this protection and further strengthen it; in addition the strive towards the maintenance and/ or restoration of good water status in accordance with the Water Framework Directive will have benefits for the environment and water dependent habitats and species.

⁴ Hook Head cSAC has also been included – See Section 2.2.1

3. Assessment of Likely Effects

The purpose of this Habitats Directive Screening is to determine whether the Kilkenny County Development Plan 2014-2020 is likely to have any significant impacts on the conservation objectives or qualifying interests of the Natura 2000 sites in County Kilkenny or within 15km of the county boundaries.

This section sets out the elements of the plan that have been identified as likely to give rise to significant effects on Natura 2000 sites. The preliminary screening of objectives of the plan is set out in Appendix 2 of this report. The potential impacts were assessed in the absence of any mitigation measures, and the precautionary principle that the potential for effects cannot be ruled out, rather than the certainty of the effects occurring was applied.

3.1 Summary Overview of elements in the Plan that are likely to give rise to impacts on Natura 2000 sites

- Settlement Strategy – sets out strategy for hierarchical distribution of population.
- Economic Development - provides for economic development and zoning.
- Sets out strategic locations for optimal location of economic concentration and development.
- Spatial distribution of retail development within the county.
- Objectives for development of riverside walks.
- Objectives to facilitate infrastructure projects including waste and broadband.
- Renewable Energy Strategy and objectives to facilitate bioenergy, hydro-power and geothermal projects.
- Transport objectives for development which facilitates cycling, bus parking and road development.
- Provision of zoning for a range of lands uses in New Ross Environs, Bennettsbridge and Kilmacow.

3.1.1 Objectives in the Plan that are Likely to Give Rise to Impacts on Natura 2000 sites

Chapter 3: Core Strategy

Section 3.3 Settlement Hierarchy

3.3.2 Waterford Gateway (Ferrybank/ Belview)

- To implement the NSS and South East Regional Planning Guidelines by encouraging developments into the designated Hub of Kilkenny and the environs of the Waterford Gateway.
- To review the County Development Plan in the light of any emerging replacement to the NSS and South East Regional Planning Guidelines and vary the Development Plan accordingly if necessary.

3.3.3 Large Town – the Environs of New Ross

- 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

3.3.4 District Towns

- 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.
- Promote enterprise and economic development in Graiguenamanagh in line with the Graiguenamanagh-Tinnahinch Development and Economic Study, 2006.

Development Objectives for smaller towns and villages

- To facilitate development of housing, economic development, services and infrastructure in the smaller towns and villages of the county at a scale and character which is appropriate in order to sustain and renew populations and services in these areas.

Chapter 4: Economic Development

4.4.3 Services Development

- To ensure an adequate amount of employment land on a campus type environment is available within the County for ICT and technology office based industry at the appropriate strategic locations.

4.4.4 Tourism Arts and Leisure

- To deliver and implement the 6 projects associated with the Medieval Mile proposals during the lifetime of the Plan 2014 – 2020 for the city and county.
- To continue the development of major flagship tourism projects within the county to enhance the tourism product for the county.

Section 4.6 Strategic Locations for Enterprise and Employment

4.6.1 Kilkenny City

- To ensure that an adequate quantity and range of land is available for enterprise development and that the appropriate infrastructure is provided.

4.6.2 Belview Port

- To deliver high speed broadband to the Belview port area within the lifetime of the Plan.
- To assist in the provision of natural gas supply to the port area within the life time of the plan.
- To review the Ferrybank Belview Local Area Plan in 2015 continuing with the policy of partnership with the local community.

4.6.3 District Towns

- To ensure the sustainable development of the District towns in the County to achieve their target populations and enhance their capacity to attract new investment in employment, services and public transport for the benefit of their own populations and that of their rural hinterlands.
- To promote a diverse and sustainable local economy through the designation of sufficient lands for employment related uses, including facilities, to promote SME growth through the local area plans for the District towns.
- To review the local area plans for the District towns in 2015 following the adoption of the county development plan.

Section 4.8 Review of Retail Potential

4.8.2 Ferrybank/ Belview (Waterford City Environs)

- To engage with the other relevant local authorities within the region in the preparation of a joint retail strategy for the greater Waterford City area.

4.8.3 District Towns

- To sustain and enhance the vitality and viability of the role and potential of the four District Towns.

4.9 Spatial Distribution of New Retail Development

- To improve convenience market share retained within the county to 80% post 2020.
- To improve comparison market share retained within the county to 75% post 2020
- To increase convenience trade draw from 8% to 15% post 2020
- To maintain comparison trade draw at 58% post 2020

Chapter 5 Housing and Community

Section 5.2 Housing Strategy

- To implement the Housing Strategy contained in Appendix B.

Chapter 7 Recreation, Tourism & the Arts

7.3.2 Walking and Cycling

- The Council will continue to assist and support the development of the Nore Valley Walk and protect its route from encroachment by unsympathetic development.

7.3.3.1 Nore Linear Park

- Complete the development of the River Nore Linear Park within the lifetime of the Plan.

Chapter 9 Infrastructure

9.2.12.1 Waste Management Objective

- To implement the Joint Waste Management Plan for the South East Region.

9.4.1.1 Metropolitan Area Networks

To facilitate the delivery of high quality broadband to the District towns in the county.

Chapter 10 Renewable Energy Strategy

- Facilitate the development of projects that convert biomass to energy.
- In general, direct commercial bioenergy plants to locate on brownfield sites which are adjacent to industrial areas or on lands which are reserved for industrial uses in any development plan. Brownfield sites in rural areas may also be considered.
- Ensure that any commercial bioenergy plant is close to the point of demand and is served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.
- Seek to respond positively to applications for waste to energy projects.

10.7.3 Hydro Power Objectives

Facilitate the development of appropriate projects that convert hydro power to energy.

10.9.3 Geothermal Energy Objectives

Support the development of geothermal energy and heat pumps.

Chapter 11 Transport

11.1.1.1 Cycling Objective

- The Council will implement the provisions of the National Cycle Policy Framework where possible.

11.7.8.1 Road Objectives

To seek and support the implementation of the NRA projects as outlined.

- To support the implementation of the NRA projects as outlined above.
- To preserve free from development proposed road realignment/improvement lines and associated corridors where such development would prejudice the implementation of National Roads Authority or County Council plans (See Figure 11.1)
- To seek an upgrade of the R700 between New Ross and Kilkenny to National Secondary status and to provide a relief road for Thomastown.
- To seek an upgrade of the Kilkenny to Urlingford Road (R693) to National Secondary status and to improve the road realignment in its entirety.
- To seek an upgrade of the New Ross to Mullinavat Regional Road (R704).
- Reserve the proposed line of the western bypass for the city from the Castlecomer Road to the Waterford Road free from development.
- To complete the R697 Kells Road Improvement Scheme.
- To improve substandard sections of regional roads throughout the County, in particular those most heavily trafficked, and those providing access to existing or proposed industrial, residential or commercial developments.

Chapter 12 Requirements for Developments

Community Facilities

- To protect, provide and improve community facilities.

General Development (Kilmacow & New Ross)

- To provide for the development and improvement of appropriate uses in areas where existing commercial uses have established and allow for the development of the settlement as a focus for local services, sustaining and strengthening its role as a population centre.

Industrial

- To provide for industrial and related uses.

Industrial/Employment (Bennettsbridge)

- To provide for employment and related uses subject to the provision of necessary infrastructure.

Mixed Use (New Ross Environs)

- To encourage the development of underutilised and brownfield lands with a view to consolidating and adding vitality to these areas and ensuring the efficient use of urban lands. A mix of uses such as residential, commercial, community, tourism and recreation are envisaged. Any retail development proposed shall comply with the requirements of the Retail Strategy.

Open Space/Recreation

- To preserve, provide and improve recreational open space and to allow for green links and biodiversity conservation.

Phase 2

- This land will not be released for development during the lifetime of this plan. The situation will be monitored on an ongoing basis.
Expansion of existing land uses within the lands will be considered on a case by case basis having regard to the potential impacts on the strategic nature of the phase 2 lands and general planning considerations.
- To prohibit new residential development of phase 2 lands in the settlements of Bennettsbridge, Kilmacow and New Ross during the lifetime of the County Development Plan.

Existing Residential

- To protect and improve residential amenities and to provide for new residential development appropriate to the scale and character of the settlement.

Residential (low density)

- To provide for low density residential development appropriate to the scale and character of the settlement.
The maximum residential density to be permitted here shall be 5 dwellings to the acre, depending on servicing arrangements.

Phase 1 Residential

- To provide for new residential communities and protect and enhance amenities of existing residential areas.

Village Centre

- To provide for the development and improvement of appropriate town centre uses and allow for the development of the village as a focus for local services, sustaining and strengthening its role as a population centre.

3.2 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.

3.2.1 Likely direct, indirect or secondary impacts of the plan on Natura 2000 sites within County Kilkenny and within 15km of the county border

Criteria for assessment of likely impacts on the Natura 2000 sites:

- 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. Also included in this assessment is Hook Head cSAC (site code 000764).

Site Name	cSAC 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 Kilkenny County Development Plan 2014-2020 sets out a hierarchical structure for the concentration of population, economic development, community services and infrastructure in the county within the wider framework of the Regional Planning Guidelines for the Southeast Region. The qualifying interests and threats to the site integrity as set out in table 2.2.5.2, 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 as per the criteria outlined above.

Table 3.2.1 (a): Likely impacts of the plan on Natura 2000 sites within 15km of the county border

Site Name & Code	Potential Impacts arising from the Plan	AA required
Ballyprior Grassland cSAC (002256)	The 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 agricultural activities in close proximity to the site. It is unlikely that the plan will give rise to significant adverse impacts on the site's conservation objectives.	No
Blackstairs Mountain cSAC (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, although hydrological interaction has been identified as a threat to the site through group water schemes. Topography indicates that the area is upstream of potential impacts on surface and groundwater that may arise in County Kilkenny, and taken together with the largely self-contained nature of the site, it is unlikely that developments facilitated through the plan will have significant adverse impacts on the site's conservation objectives.	No
Comeragh Mountains cSAC (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, however topography indicates that the area is upstream of potential impacts on surface and groundwater that may arise in County Kilkenny, and the site is unlikely to be affected by any developments that may be facilitated by the plan.	No
Tramore Dunes and Backstrand cSAC (000671)	The site is 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. Given the nature of the threats to the conservation objectives of the site, it is not anticipated that development facilitated by the plan is likely to have significant adverse impacts on the site's conservation objectives.	No
Tramore Dunes and Backstrand SPA (004027)	The site is 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	No

	airport drain into the subject site. It is therefore not anticipated that development facilitated within County Kilkenny are likely to have significant adverse impacts on the site's conservation objectives.	
Bannow Bay cSAC (000697)	The SAC is 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 pollution has been identified as a potential threat to the conservation objectives of the SAC; there are no hydrological connections with the site from developments that may occur within County Kilkenny as a result of the plan. It is unlikely that developments facilitated within County Kilkenny will give rise to adverse impacts on the conservation objectives of the SAC.	No
Bannow Bay SPA (004033)	The SPA site is 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 has been identified potential threats to the conservation objectives of the SPA; however there are no hydrological connections with the site from developments that may occur within County Kilkenny as a result of the plan. It is unlikely that developments facilitated within County Kilkenny will give rise to adverse impacts on the conservation objectives of the SAC.	No
Slaney River Valley cSAC (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 under the plan will give rise to adverse impacts on the conservation objectives of the SAC.	No
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 plan will have significant adverse impacts on the site's conservation objectives.	No
Hook Head (Site Code 000764)	There is over 15 km of estuarine and open marine habitat occurring between the plan area and this cSAC. It is unlikely that the development to be facilitated by the plan will have significant adverse impacts on the site's conservation objectives.	No

Table 3.2.1 (b): Likely direct, indirect or secondary impacts on Natura 2000 sites in County Kilkenny

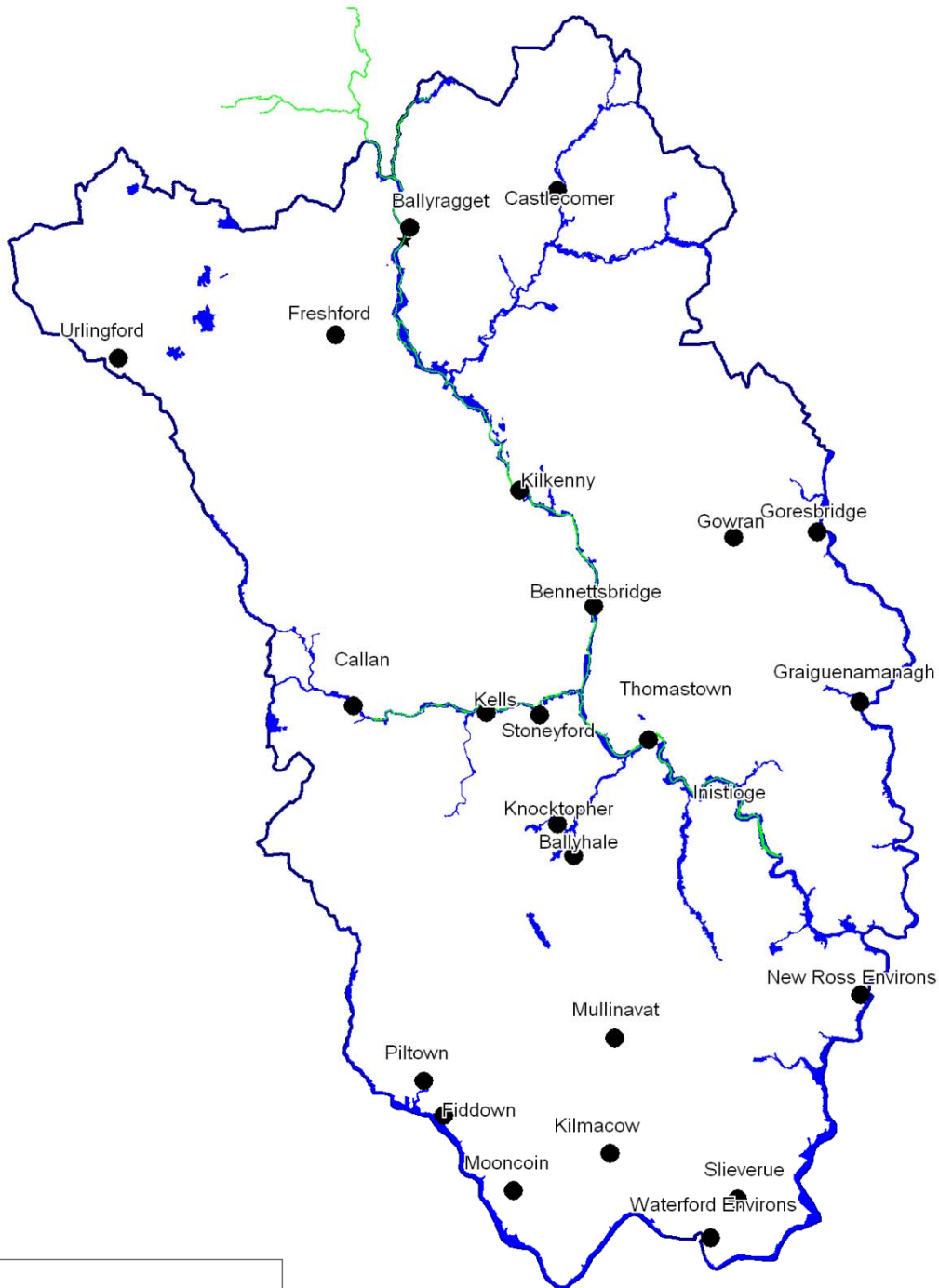
Site Name	Potential Impacts arising from the Plan	AA required
Candidate Special Area of Conservation		
000831 Cullahill Mountain	The site is located remote from settlements in County Kilkenny and is unlikely to be affected by developments within settlements. However potential exists for impacts from quarrying as there is high potential for crushed rock aggregate in this area. The SAC is located adjacent to a 'preferred' location for wind energy development (Area 1) as set out in Figure 10.2 of the plan. The development of wind energy adjacent to the SAC may result in loss of the grassland habitat. Potential exists from developments such as telecommunications antennae for loss of the habitat for which the site is designated.	Yes
000404 Hugginstown Fen	The favourable conservation status of the fen is determined by the hydrological regime and supports groundwater-dependent qualifying interests; the site may be vulnerable to water abstraction, or indirect impacts through discharges to groundwater or alteration to groundwater levels.	Yes
001858 Galmoy Fen	The site is located remote from settlements in County Kilkenny and is unlikely to be affected by developments within settlements. However potential exists for impacts from the wind energy strategy as set out in Figure 10.2 of the plan which indicates that the area adjacent to the south of the fen is 'open for consideration' for wind energy development. The favourable conservation status of the fen is determined by the hydrological regime and supports groundwater-dependent qualifying interests; the site may be vulnerable to water abstraction, or indirect impacts through discharges to groundwater or alteration to groundwater levels.	Yes
000849 Spa Hill & Clomantagh Hill	The site is located remote from settlements in County Kilkenny and is unlikely to be affected by developments within settlements. However potential exists for impacts from quarrying as there is high potential for crushed rock aggregate in this area. In addition potential exists from developments such as telecommunications antennae for loss of the habitat for	Yes

	which the site is designated.	
000407 The Loughans	The site is located remote from settlements in County Kilkenny and is unlikely to be affected by developments within settlements. However the site is likely to have groundwater conduits feeding, the location of these hydro-geological links are not clear and there is potential for indirect impacts where a development may cause alterations to groundwater composition or supply which could have negative effects on the site.	Yes
002252 Thomastown Quarry	Thomastown Quarry is located adjacent to the development boundary for the district town of Thomastown. Having regard to its proximity to the settlement of Thomastown potential exists for impacts on groundwater levels in the area.	Yes
002137 Lower River Suir	<p>Potential exists for impacts on the site through direct, indirect and secondary impacts from developments carried out in settlements along the river such as Piltown, Fiddown and Waterford Environs through disturbance to habitats and species.</p> <p>The plan may result in alterations to the hydrological regime or physical environment of the site from discharges to watercourses or groundwater resources. Potential also exists for contamination through diffuse and point source runoff from development during the construction or operational phases of developments located adjacent to the site. Drainage works, hydro schemes and transportation works also have potential for a significant adverse effect on the integrity of the site.</p> <p>A reduction in water quality through sedimentation or contamination by pollutants would directly affect all aquatic plant and animals. This would have knock-on effect throughout the food chain on invertebrates, birds, fish and mammals. Many of the associated habitats and species are dependent on high water quality. Runoff and contamination events would have negative consequences for the qualifying interests and conservation objectives of the site.</p>	Yes
002162 River Barrow and River Nore cSAC	The River Barrow and River Nore cSAC has the potential for significant adverse effects from development from a number of sources. The River Nore bisects the county and the River Barrow flows along much of the east border of the county; there are many hydrological links	Yes

	<p>with the site throughout the county. The following settlements are located along the site or in close proximity to the site and have potential for impacts both direct, indirect and loss of habitats and disturbance of species and introduction of invasive species from developments carried out in the settlements – Ballyragget, Castlecomer, Kilkenny City, Bennettsbridge, Goresbridge, Callan, Kells, Stoneyford, Knocktopher, Ballyhale, Inistioge, Thomastown, Graiguenamanagh and New Ross Environs.</p> <p>In addition the Wind Energy Strategy indicates preferred areas for development adjacent to the site near Coan to the north of the County and also may directly impact on the site at Brownswood to the west of New Ross.</p> <p>Direct loss of habitat resulting from bankside vegetation removal, or drainage works along the river affects the overall riparian habitat on which qualifying interests and the biodiversity of the site depends.</p> <p>The plan may result in alterations to the hydrological regime or physical environment of the site from discharges to watercourses or groundwater resources. Potential also exists for contamination through diffuse and point source runoff from development during the construction or operational phases of developments located adjacent to the site. Drainage works, hydro schemes and transportation works also have potential for a significant adverse effect on the integrity of the site.</p> <p>A reduction in water quality through sedimentation or contamination by pollutants would directly affect all aquatic plant and animals. This would have knock-on effect throughout the food chain on invertebrates, birds, fish and mammals. Many of the associated habitats and species are dependent on high water quality. Runoff and contamination events would have negative consequences for the qualifying interests and conservation objectives of the site.</p>	
<p>Special Protection Area</p>		
<p>River Nore 004233 SPA</p>	<p>The following settlements are located along the site or in close proximity to the site and have potential for impacts both direct, indirect and loss of habitats and disturbance to the Kingfisher from developments carried out in the settlements – Ballyragget, Kilkenny City, Bennettsbridge, Kells, Stoneyford, Inistioge and Thomastown.</p> <p>Proposals for walks along the river and amenity schemes improving access to the river also have the</p>	<p>Yes</p>

	<p>potential for impacts on water quality and disturbance. Direct loss of habitat resulting from bankside vegetation removal of drainage works along the river affects the overall riparian habitat on which qualifying features and the biodiversity of the site depends. The plan may result in alterations to the hydrological regime or physical environment of the site from discharges to watercourses or groundwater resources. Potential also exists for contamination through diffuse and point source runoff from development during the construction or operational phases of developments located adjacent to the site. Runoff and contamination events would have negative consequences for the qualifying interests and conservation objectives of the site.</p>	
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Map 2: Location of Settlements and Natura 2000 Sites in County Kilkenny



Legend	
Existing settlement boundary	●
Special Area of Conservation	■ (blue)
Special Protection Area	■ (green)

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

3.2.1.1 Conclusion of Screening of the likely direct, indirect or secondary impacts on Natura 2000 sites within 15km of the county border⁵

Having regard to the foregoing, having assessed the potential threats to the site in relation to the identified objectives likely to give rise to impacts on Natura 2000 sites as a result of the Kilkenny County Development Plan 2014-2020, and also having regard to the qualifying interests and conservation objectives of the Natura 2000 sites not in the county but 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.

A 'Finding of No Significant Impacts' table has been completed for Natura 2000 sites not in the county but within 15km of the Kilkenny county border and is included in Appendix 3 of this report.

3.2.1.2 Conclusion of the screening of the likely direct, indirect or secondary impacts on Natura 2000 sites within County Kilkenny

The screening process has identified that all Natura 2000 sites within the county have the potential to be adversely affected by the implementation of the Kilkenny County Development Plan 2014-2020 from a number of objectives as set out in the plan. Many of the qualifying interests of the Natura 2000 sites in County Kilkenny are water dependent and so negative effects on water quality and quantity may have significant effects on the integrity of Natura 2000 sites in the county.

⁵ Hook Head cSAC has also been included – See Section 2.2.1

4. Stage 2 - Appropriate Assessment

4.1 Introduction

The main objective of this stage (Stage 2) in the AA is to determine whether the Plan would result in significant adverse impacts to the integrity of any Natura 2000 site with respect to the site’s structure, function and/or conservation objectives.

The Stage 1 Screening has created a list of sites with potential to be affected by the Plan. Therefore, a Stage 2 Appropriate Assessment is required. The potential adverse effects considered at this stage will either be effects occurring as a result of the application of the Plan alone or in-combination with other plans, programmes and/or projects.

In total, nine sites have been identified that may be adversely affected through the implementation of the Plan. As can be seen in Table 4.1, most of the sites potentially affected by the Plan are have been designated for habitats and species that are dependent on groundwater and surface water quality and availability. Three of these sites are within or adjacent to areas identified by the Wind Energy Strategy as being areas which are ‘Preferred’ or ‘Open for Consideration’ for the development or wind energy development, so are particularly vulnerable in this regard.

Table 4.1: Natura 2000 sites subject to Stage 2 Appropriate Assessment

Rivers	Fens	Turloughs	Other	SPAs
* Lower River Suir 002137	* Hugginstown Fen 000404	* The Loughans 000407	Cullahill Mountain 000831	* River Nore 0004233
* River Barrow & Nore cSAC 002162	* Galmoy Fen 001858		Spa Hill & Clomangtah Hill 000849	
* River Nore SPA 0004233			* Thomastown Quarry 002252	

* Natura 2000 sites that are dependent on groundwater and surface water quality and availability.

4.2 Potential Significant Effects

As outlined in the EU document “*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*”, and the national guidance document ‘*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*’, impacts that could potentially occur through the implementation of the Plan can be categorised under a number of headings

- Loss/Reduction of habitat area – as a result of developments such as transport infrastructure or Wind Energy.
- Disturbance to key species – from works such as increased public access to protected sites and increased recreational pressure such as development of footpaths and cycleways.
- Habitat or species fragmentation – from developments such as wind energy or telecommunications developments.
- Reduction in species density
- Changes in key indicators of conservation value such as decrease in water quality and quantity – through inadequate wastewater treatment, or runoff of pollutants during construction and operational phases of development.

The Development Plan is a high level plan that provides a framework for sustainable development within County Kilkenny. Whilst some projects are site specific, such as road development works and zonings in the settlements of New Ross Environs, Kilmacow and Bennettsbridge, the Plan does not prescribe the particular locations for developments. Overall, the Plan underpins the development of housing, communities and urban centres with supporting transport, water, waste, energy and communication infrastructure within the County.

4.2.1 Reduction of Habitat Area

Direct habitat loss is caused where there is complete removal of a habitat type. Habitat loss can also occur through the reduction of habitat quality and a loss of important habitat functions. It can arise from the introduction of invasive species, toxic contamination or physical alteration. Indirectly, it can be caused by hydrological disturbance of groundwater dependant sites such as turloughs and alkaline fens resulting in loss of habitat function and integrity. Candidate SACs within County Kilkenny are vulnerable in this regard, given the high proportion of sites that are designated for habitats sensitive to changes in groundwater flow or surface water run-off (Lower River Suir, River Barrow and Nore, Hugginstown Fen, The Loughans and Thomastown Quarry).

There is a potential that any designated site within the functional area of the plan may be either directly or indirectly adversely affected in this manner through the implementation of the Plan. Development either in isolation or in combination with other similar developments can potentially lead to significant adverse impacts on the environment with long term consequences. Construction of wind energy development, riverside amenities or telecommunications could lead to loss of habitats if inappropriately located within the boundaries of a designated site. Installation of linear infrastructure such as roads and other transportation links or water and wastewater pipelines can have a negative impact over a wide distance where such infrastructure crosses designated sites. Impacts can include habitat or species fragmentation where, for example, electricity supply lines interrupt the flight paths of birds or newly installed bridges disturb the migration of salmon. Indirectly, habitat loss may also occur through draining of development lands adjacent to or hydrogeologically linked to designated sites that support water based habitats such as fens and turloughs. Wind farm infrastructure, such as access roads has the potential to impact on groundwater flows particularly within peat habitats. Inappropriate wind farm development on peat adjacent to an important peatland conservation site, such as a raised bog SAC, has the potential to impede water flow through the peat. Such a situation can result in an impact on the ecological integrity of the site. A review of the zoning maps for the three settlements of New Ross Environs, Kilmacow and Bennettsbridge included in the County Development Plan indicates that, for the most part there are no Natura 2000 sites or parts of designated sites subject to zoning that would lead to direct habitat loss – open space zoning provides for the protection of the environment with the objective ‘to preserve, provide and improve recreational open space and to allow for green links and biodiversity conservation’. However, the Plan does support the development in these zoned settlements and in the 12 settlements with development boundaries which are adjacent to hydrological links to designated sites such as Ballyragget, Goresbridge, Inistioge, Kells, Knocktopher, Mooncoin, Mullinavat and Stoneyford and this could lead to habitat loss where developments do not take adequate precautions to prevent impacts on groundwaters or surface waters. Whilst direct habitat loss through inappropriate development is unlikely it cannot be ruled out completely.

4.2.2 Fragmentation

Habitat and species fragmentation can occur through the breaking up of or loss of habitats resulting in interference with existing ecological units. Fragmentation can also result from impediments to the natural movements of species. This is relevant where important corridors for movement or migration are likely to be disrupted such as along river corridors such as when construction introduces a barrier to the free movement of species from one habitat to another.

Installation of linear infrastructure e.g. roads and other transportation links, water and wastewater pipelines, electricity supply lines, can have a negative impact over a wide distance where such infrastructure crosses designated sites. Impacts can include habitat or species fragmentation where, for example, newly installed bridges disturb the migration of salmon. Disturbance impacts to birds, can also lead to fragmentation of bird populations from riverside development such as walking and cycling paths, increases in access points to rivers, road improvements and bridges and drainage works; research undertaken by Birdwatch Ireland show that the Kingfisher on the River Nore are vulnerable to disturbance in this regard.

4.2.3 Disturbance to Key species

Disturbance to species supported within a Natura 2000 site is likely to increase where there is an increase in activity levels from recreation and amenity or from developments within or adjacent to designated areas. Sources of disturbance include noise, vibration, light, construction and operation activities or other sources of disturbance arising from recreation and amenity – including riverside walks and water sports, from the inappropriate timing of works or proximity to settlements. The Natura 2000 sites potentially affected include the River Barrow and River Nore cSAC, Lower River Suir cSAC and the River Nore SPA.

Whilst wind energy developments can affect birds in a number of ways, including collision with turbines, disturbance and displacement from feeding or nesting sites, barrier impacts on flight paths and effective fragmentation of used habitats, the potential for such disturbance is somewhat reduced as areas proximate to the designated River Nore SPA have not been indicated as being preferred options for such development.

4.2.4 Changes in Key Indicators of Conservation Value

The key indicators of conservation value for the majority of Natura 2000 sites in County Kilkenny are surface water and groundwater quality and quantity. Impacts on Natura 2000 sites may occur where there are hydrological connections between the sites and development areas, even where a development or activity occurs at a location which is geographically remote from the designate site. Implementation of the Plan may result in alterations to the hydrological regime or physical environment of sites through abstraction, drainage, and discharges to watercourses or groundwater resources. Of particular importance will be the provision of water supplies and the disposal of wastewater.

County Kilkenny has 35 settlements which have waste water treatment plants; 12 of these settlements have adequate capacity for anticipated growth over the Plan period.

However, 15 settlements have limited capacity to cater for the future population growth proposed under the Core Settlement Strategy. Any increase in population within the settlements which form part of the settlement strategy will increase the loading on the existing wastewater infrastructure. In the absence of adequate treatment, discharges from such plants can potentially increase the

nutrient loading on receiving waters with direct, long term and adverse consequences for the aquatic environment.

The EPA publishes reports on the status of waste water treatment in Ireland. The latest of these is an Update Report to the *Focus on Urban Waste Water Discharges in Ireland, Urban Waste Water Treatment*. This sets out which plants have treatment that is not appropriate based on the effluent results and/or have taken less than the recommended numbers of samples. The plants are categorised into Pass or Fail.

- *Pass* – the 2011 results met the standards set in the Directive for effluent quality, and a sufficient number of effluent samples were collected, analysed and reported to the EPA.
- *Fail* – the 2011 results did not meet the standards set in the Directive for effluent quality and/or an insufficient number of effluent samples was collected, analysed and reported to the EPA.
- *No secondary* – waste water received no treatment or a basic level of treatment (i.e. preliminary treatment or primary treatment) prior to discharge and consequently the effluent could not achieve the quality standards specified in the Directive.

Of the 21 plants listed, 8 passed, 7 failed and 6 had no secondary treatment. This compares to 2010, where 8 plants failed, 6 passed, 6 had no secondary treatment and 1 had no result.

Wastewater treatment plants to be prioritised for investment include – Kilkenny City, Freshford, Johnstown, Goresbridge, Paulstown, Ballyhale, Urlingford, Stoneyford, Castlecomer, Piltown, Fiddown, Bennettsbridge, Mullinavat, Inistioge and Clogh/ Mooneenroe.

The Natura 2000 sites potentially affected include those that are surface water dependent, in particular the River Barrow and River Nore cSAC, the Lower River Suir cSAC and the River Nore SPA. These sites are vulnerable as waste water from a number of towns and settlements is either discharged directly into these rivers or into watercourses which feed into these rivers. Cumulative impacts through waste water discharges from surrounding counties may also affect these sites.

The Water Framework Directive established a framework for the protection of all waters including rivers, lakes, estuaries, coastal waters, groundwater, canals and other artificial bodies for the benefit of everyone.

For the purposes of implementing the WFD, Ireland has been divided into eight river basin districts that are drained by a large river or number of rivers. County Kilkenny is located in the South Eastern River Basin District. The South East River Basin Management Plan (*Water Matters*) 2009-2015 was published in 2010.

Water in the District has been divided into groundwater, rivers, lakes, estuarine and coastal waters, which are in turn divided into specific waterbodies. Each waterbody is categorised in terms of its water quality status as follows: High, good, moderate, poor, bad, yet to be determined. The Environmental Protection Agency manages the monitoring of all waterbodies, and the latest information on the status of each waterbody is available at <http://gis.epa.ie/Envision/>.

Groundwater is categorised as good status throughout the county. This is an improvement from the South East River Basin Management Plan in 2010, when two groundwater bodies, Waterbody IE_SE_G_059 on the Laois border and the area around Newrath, Waterbody IE_SE_G_150, were classified as Poor.

The South East River Basin Management Plan noted that two rivers in the county were classified as Bad status, the River Nore south of Thomastown and the River Gowran, which is a tributary of the Barrow. As at January 2013, no river in the county is classified as Bad status, but a number of rivers are classified as Poor. Two sections of the River Nore, forming part of the cSAC and SPA, are classified as Poor.

Information on trends in river water quality is available from the EPA Report on River Water Quality in County Kilkenny. This shows that since 2008, river water quality has remained relatively stable, with a decrease in the number of unpolluted rivers, but also a decrease in the number of seriously polluted rivers.

Estuarine waters include the Upper River Suir, Upper River Barrow and the River Nore. As of January 2013, all estuarine waters were either at good or moderate status.

The Waterford Harbour Shellfish Growing Area was designated in 2009. A Pollution Reduction Programme was prepared based on the Characterisation Report. This found that the key pressures on the site were urban wastewater systems, on-site waste water treatment systems and agriculture. The pressure arising from the urban wastewater systems was alleviated in 2010 with the opening of the upgraded Waste Water Treatment plant in Belview; however concerns still exist from on site waste water treatment systems such as septic tanks.

The abstraction of water for public and group schemes supply has the potential to affect Natura 2000 Sites where hydrological pressures arise. Ground water is the main source of drinking water in County Kilkenny. Of the 20 public water supply schemes in the county, have only limited capacity and of these 5 have been prioritised for upgrades. Areas not served by public or group schemes rely on individual wells as their source of water. Development located in proximity to groundwater dependent habitats may interfere with the hydro geological regime that supports groundwater-dependant qualifying interests such as fens and turloughs. This will reduce the extent and quality of habitat. The Natura 2000 sites potentially affected include Hugginstown Fen, Galmoy Fen, The Loughans and Thomastown Quarry.

Section 3.3.5.3 of the Plan states that the scale and density of development in smaller towns and villages is dependent on a number of factors which include the availability of infrastructure including appropriate waste water treatment facilities and water supply.

The EIS prepared for the Kilkenny City Regional Water Supply Scheme shows that the slight reduction in the level of the water table throughout parts of the limestone aquifer at Kilkieran and the sand and gravel aquifer at Dunmore is an essential part of the development and cannot be mitigated. The groundwater model predicts that the drawdown associated with the long term operation of the wellfields will be of 0.3m within 500m and 0.1m within 1.5km of the proposed wellfield at Dunmore. The drawdown at Kilkieran is predicted to extend to 1m up to 1.5km south of the wellfield and 750m north of the wellfield. The project is pending assessment of the EIS by An Bord Pleanála.

The Renewable Energy Strategy for County Kilkenny includes for the provision of hydroelectric schemes. 23 sites have been identified as having potential for small-scale hydroelectric schemes along the River Barrow and River Nore cSAC and River Nore SPA (these potential locations are based in a report produced in 1985). Hydroelectric schemes by their nature and scale could significantly affect Natura 2000 sites, leading to not just to changes in water quality and quantity, but also to loss of habitat and fragmentation of populations of surface water dependant species such as Atlantic salmon, Sea lamprey, Brook lamprey, Otter and Freshwater crayfish. Section 10.7.2 of the plan states 'many of the county's rivers are designated as SACs or SPAs . . . as with all developments, for any location within or adjacent to a Natura 2000 site, an assessment under Article 6 of the Habitats Directive will be required'.

4.3 Mitigation Measures

The importance of the protection of the environment, biodiversity and protected species and habitats formed an important part of the plan making process; however a number of objectives are included in the plan which have potential to result in significant adverse effects on the integrity of the Natura 2000 network within the Plan area. In order to prevent, offset or negate these effects, it is necessary to propose mitigation measures to prevent such significant adverse effects.

The preceding section identified that impacts on water may arise through abstraction of drinking water and point source discharges of wastewater. Where necessary Kilkenny County Council has made applications to the Environmental Protection Agency for Waste Water Discharge Authorisation and Certificates of Authorisation from the EPA. In addition, any newly proposed or upgraded wastewater treatment plants should fully comply with all Urban Waste Water Regulation requirements 2001-2004 (paying particular emphasis to Phosphorus due to the Natura 2000 sites sensitivity), and should furthermore comply with all the waste water discharge authorisation requirement as per 2007 Regulations and Urban Wastewater Regulations 2001.

A number of the objectives in the plan have as their focus the protection of the environment, water and Natura 2000 sites; these are listed below and provide the main basis of the mitigatory measures in relation to the elements of the plan which are likely to give rise to impacts on Natura 2000 sites.

4.3.1 List of Mitigatory objectives for the protection of the environment

1.3 Appropriate Assessment

- To implement the provisions of Articles 6(3) and 6(4) of the EU Habitats Directive.
- To ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with the Guidance Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and 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.

These objectives will apply to all plans and projects whether public or private and across all sectors of development.

8.2.1.3 Rare and Protected Species and their Habitats

- To protect and, where possible, enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts). This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan.
- To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI94 of 1999).

8.2.2 Green Infrastructure

To prepare and support the implementation of a Green Infrastructure Strategy for County Kilkenny.

8.2.3 Nature Conservation Outside of International and Nationally Protected Areas

To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road

verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites. Appropriate mitigation and/or compensation measures to conserve biodiversity, landscape character and green infrastructure networks will be required where habitats are at risk or lost as part of a development.

8.2.5.1 Hedgerows

Kilkenny County Council will promote the planting of native tree and shrub species, by committing to using native species (of local provenance wherever possible) in its landscaping work and on County Council property.

9.1.6 Water Services Objectives:

Meet in full the requirements of the E.U. Urban Waste Water Treatment and Water Framework Directives and the Drinking Water Regulations.

9.2.8.3 Water Quality Objectives

To promote compliance with environmental standards and objectives established—

- for bodies of surface water, by the European Communities (Surface Waters) Regulations 2009;
 - for groundwater, by the European Communities (Groundwater) Regulations 2010;
- which standards and objectives are included in the South East River Basin Management Plan.

4.3.2 Objectives Screened in under Stage 1 and Mitigation Measures

Table 4.3.2: Objectives Likely to give rise to Significant Impacts on Natura 2000 and Mitigation Measures

Objectives likely to give rise to impacts on Natura 2000 sites	Mitigatory Measures (refer to list 4.3.1 above)
Chapter 3: Core Strategy	
Section 3.3 Settlement Hierarchy 3.3.2 Waterford Gateway (Ferrybank/ Belview) To implement the NSS and South East Regional Planning Guidelines by encouraging developments into the designated Hub of Kilkenny and the environs of the Waterford Gateway.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3
To review the County Development Plan in the light of any emerging replacement to the NSS and South East Regional Planning Guidelines and vary the Development Plan accordingly if necessary.	1.3
3.3.3 Large Town – the Environs of New Ross 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	1.3, 8.2.1.3, 8.2.3, 9.1.6, 9.2.8.3
3.3.4 District Towns To ensure that the District Towns will in so far as practical be self-sufficient	1.3, 8.2.1.3,

incorporating employment activities, sufficient retail services and social and community facilities.	8.2.2, 8.2.3, 9.1.6, 9.2.8.3
Promote enterprise and economic development in Graiguenamanagh in line with the Graiguenamanagh-Tinnahinch Development and Economic Study, 2006.	1.3, 8.2.1.3, 8.2.2, 8.2.3,
Section 3.3.5.3 Development Objectives for smaller towns and villages To facilitate development of housing, economic development, services and infrastructure in the smaller towns and villages of the county at a scale and character which is appropriate in order to sustain and renew populations and services in these areas.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3
Chapter 4: Economic Development	
4.4.3 Services Development To ensure an adequate amount of employment land on a campus type environment is available within the County for ICT and technology office based industry at the appropriate strategic locations.	1.3, 8.2.1.3, 8.2.3, 9.1.6, 9.2.8.3
4.4.4 Tourism Arts and Leisure To deliver and implement the 6 projects associated with the Medieval Mile proposals during the lifetime of the Plan 2014 – 2020 for the city and county.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 8.2.5.1 9.1.6, 9.2.8.3
To continue the development of major flagship tourism projects within the county to enhance the tourism product for the county.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3
Section 4.6 Strategic Locations for Enterprise and Employment	
4.6.1 Kilkenny City To ensure that an adequate quantity and range of land is available for enterprise development and that the appropriate infrastructure is provided.	1.3, 8.2.1.3, 8.2.3,
4.6.2 Belview Port To deliver high speed broadband to the Belview port area within the lifetime of the Plan.	1.3, 8.2.1.3, 8.2.3,
To assist in the provision of natural gas supply to the port area within the life time of the plan	1.3, 8.2.1.3, 8.2.3,
To review the Ferrybank Belview Local Area Plan in 2015 continuing with the policy of	1.3,

partnership with the local community.	8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3
4.6.3 District Towns To ensure the sustainable development of the District towns in the County to achieve their target populations and enhance their capacity to attract new investment in employment, services and public transport for the benefit of their own populations and that of their rural hinterlands.	1.3, 8.2.1.3, 8.2.3, 9.1.6, 9.2.8.3
To promote a diverse and sustainable local economy through the designation of sufficient lands for employment related uses, including facilities, to promote SME growth through the local area plans for the District towns.	1.3, 8.2.1.3, 8.2.3, 9.1.6, 9.2.8.3
To review the local area plans for the District towns in 2015 following the adoption of the county development plan.	1.3, 8.2.1.3, 8.2.3, 9.1.6, 9.2.8.3
Section 4.8 Review of Retail Potential	
4.8.2 Ferrybank/ Belview (Waterford City Environs) To engage with the other relevant local authorities within the region in the preparation of a joint retail strategy for the greater Waterford City area.	1.3, 8.2.1.3, 8.2.2, 8.2.3,
4.8.3 District Towns To sustain and enhance the vitality and viability of the role and potential of the four District Towns.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3
4.9 Spatial Distribution of New Retail Development <ul style="list-style-type: none"> To improve convenience market share retained within the county to 80% post 2020. To improve comparison market share retained within the county to 75% post 2020 To increase convenience trade draw from 8% to 15% post 2020 To maintain comparison trade draw at 58% post 2020 	1.3, 8.2.1.3, 8.2.3, 9.1.6,
Chapter 5 Housing and Community	
Section 5.2 Housing Strategy To implement the Housing Strategy contained in Appendix B.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6,

	9.2.8.3
7.2 Recreation and the Countryside	
7.3.2 Walking and Cycling The Council will continue to assist and support the development of the Nore Valley Walk and protect its route from encroachment by unsympathetic development.	1.3, 8.2.1.3, 8.2.2, 8.2.3
7.3 Urban Recreation – Parks	
7.3.3.1 Nore Linear Park Complete the development of the River Nore Linear Park within the lifetime of the Plan.	1.3, 8.2.1.3, 8.2.2, 8.2.3,
Chapter 9 Infrastructure	
9.1.6 Water Services Objectives: Implement the programme as outlined in the Water Services Investment Programme.	1.3, 8.2.1.3, 8.2.2, 8.2.3
9.2.12.1 Waste Management Objective To implement the Joint Waste Management Plan for the South East Region.	1.3, 8.2.1.3, 8.2.3, 9.2.8.3
9.4.1.1 Metropolitan Area Networks To facilitate the delivery of high quality broadband to the District towns in the county.	1.3, 8.2.1.3, 8.2.2, 8.2.3,
Chapter 10 Renewable Energy Strategy	
Facilitate the development of projects that convert biomass to energy.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
In general, direct commercial bioenergy plants to locate on brownfield sites which are adjacent to industrial areas or on lands which are reserved for industrial uses in any development plan. Brownfield sites in rural areas may also be considered.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
Ensure that any commercial bioenergy plant is close to the point of demand and is served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
Seek to respond positively to applications for waste to energy projects.	1.3, 8.2.1.3, 8.2.2, 8.2.3,

	9.2.8.3
<p>10.7.3 Hydro Power Objectives</p> <p>Facilitate the development of appropriate projects that convert hydro power to energy.</p>	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
<p>10.9.3 Geothermal Energy Objectives</p> <p>Support the development of geothermal energy and heat pumps.</p>	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
Chapter 11 Transport	
<p>11.1.1.1 Cycling Objective</p> <p>The Council will implement the provisions of the National Cycle Policy Framework where possible.</p>	1.3, 8.2.1.3, 8.2.2, 8.2.3
<p>To facilitate parking provision for tourist buses in towns and villages and at tourist attractions.</p>	1.3, 8.2.1.3, 8.2.2, 8.2.3,
<p>11.7.8.1 Road Objectives</p> <p>To seek and support the implementation of the NRA projects as outlined.</p> <ul style="list-style-type: none"> To support the implementation of the NRA projects as outlined above. To preserve free from development proposed road realignment/improvement lines and associated corridors where such development would prejudice the implementation of National Roads Authority or County Council plans (See Figure 11.1) To seek an upgrade of the R700 between New Ross and Kilkenny to National Secondary status and to provide a relief road for Thomastown. To seek an upgrade of the Kilkenny to Urlingford Road (R693) to National Secondary status and to improve the road realignment in its entirety. To seek an upgrade of the New Ross to Mullinavat Regional Road (R704). Reserve the proposed line of the western bypass for the city from the Castlecomer Road to the Waterford Road free from development. To complete the R697 Kells Road Improvement Scheme. To improve substandard sections of regional roads throughout the County, in particular those most heavily trafficked, and those providing access to existing or proposed industrial, residential or commercial developments. 	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.2.8.3
Chapter 12 Requirements for Developments	
<p>12.11 Zoning objectives</p> <p>Community Facilities</p> <p>To protect, provide and improve community facilities.</p>	1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3

<p>General Development (Kilmacow & New Ross)</p> <p>To provide for the development and improvement of appropriate uses in areas where existing commercial uses have established and allow for the development of the settlement as a focus for local services, sustaining and strengthening its role as a population centre.</p> <p>The purpose of this zone is mainly to reflect the existing uses that have established in this zone and to allow for their improvement and expansion as necessary to improve retailing, residential, commercial, office, cultural and other uses appropriate to the further development of the settlement.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Industrial</p> <p>To provide for industrial and related uses.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Industrial/Employment (Bennettsbridge)</p> <p>To provide for employment and related uses subject to the provision of necessary infrastructure.</p> <p>The zoning objective identifies areas suitable for employment provision, including, inter alia, industrial premises, light industry, warehouses, small and medium sized enterprise, office employment and retail, appropriate to the scale and character of the village. Particular consideration should be given to the further development, enhancement and facilitation of the crafts industry in the village. All development proposals need to demonstrate adequate provision of necessary physical infrastructure. Residential use would be considered only where no less than two separate planning uses are proposed (i.e. retail/residential or industry/residential etc.) and the residential component shall not comprise greater than 50% of the total gross floorspace. Any residential use will be subject to satisfactory arrangements in relation to the disposal of waste water.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Mixed Use (New Ross Environs)</p> <p>To encourage the development of underutilised and brownfield lands with a view to consolidating and adding vitality to these areas and ensuring the efficient use of urban lands. A mix of uses such as residential, commercial, community, tourism and recreation are envisaged. Any retail development proposed shall comply with the requirements of the Retail Strategy.</p> <p>Significant development proposals on this site must be made in the context of a masterplan/design statement for the former Albatross site, situated in both the Kilkenny County Council and New Ross Town Council jurisdictions.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Open Space/Recreation</p> <p>To preserve, provide and improve recreational open space and to allow for green links and biodiversity conservation.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Residential</p> <p>To protect and improve residential amenities and to provide for new residential development appropriate to the scale and character of the settlement.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6,</p>

	9.2.8.3
<p>Residential (low density)</p> <p>To provide for low density residential development appropriate to the scale and character of the settlement.</p> <p>The maximum residential density to be permitted here shall be 5 dwellings to the acre, depending on servicing arrangements.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>New Residential (Bennettsbridge & Kilmacow)</p> <p>To provide for new residential communities and protect and enhance amenities of existing residential areas.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>
<p>Village Centre</p> <p>To provide for the development and improvement of appropriate town centre uses and allow for the development of the village as a focus for local services, sustaining and strengthening its role as a population centre.</p>	<p>1.3, 8.2.1.3, 8.2.2, 8.2.3, 9.1.6, 9.2.8.3</p>

4.3.3 Mitigatory Measures of the Development Plan for the Protection of Natura 2000

Sites

The following section set out the measures in the plan, which act cumulatively to protect the individual Natura 2000 sites. The list and tables do not cover all of the objectives, development management standards (standards which will be applied to any proposed development) or sections of the plan of a protective or mitigatory nature but identifies those that address specific sensitivities of the sites in relation to the qualifying interests of the sites and identified potential impacts from the plan.

Many of these measures have been included specifically to protect qualifying interests of Natura 2000 sites; however the measures listed also relate to the environment outside of the designated sites as the integrity of Natura 2000 sites is strengthened by ecological corridors and stepping stones outside of the sites and many of the qualifying interests are dependent on factors such as good water quality which may be impacted upon from developments outside of the designated site boundaries.

Note: not all objectives, development management standards or text have individual reference numbers/ codes in the plan; therefore in the interests of clarity the wording of the plan has been assigned a letter (see below) for ease of reference for this section of this report.

4.3.3.1 Objectives, Development Management Standards and text of the Development Plan that provide for the protection of Natura 2000 sites and for the environment

(A) Section 1.3 Appropriate Assessment

Text of Plan:

The impacts assessed must include the indirect and cumulative impacts of the plan or project. Therefore whether a plan or project is located within, or is at a geographically remote area from a Natura 2000 site, if significant impacts cannot be ruled out then the plan or project must be subject to an appropriate assessment.

Articles 6(3) and 6(4) of the Habitats Directive and Section 177 of the Planning and Development Act 2000 (as amended), require that any plan or project with the potential to impact on the integrity of a Natura 2000 site must be screened to determine if appropriate assessment of the plan or project is required. In the event that the screening indicates that potential significant impacts cannot be ruled out then the plan or project will require an appropriate assessment.

Objective:

- To implement the provisions of Articles 6(3) and 6(4) of the EU Habitats Directive.
- To ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with the Guidance Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and 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.

These objectives will apply to all plans and projects whether public or private and across all sectors of development.

(B) 1.5 *Structure of the Plan*

Objective: To implement the Development Management Standards as set out in the Plan as appropriate.

(C) 4.4.2 *Agri-Food*

Objective:

To ensure the highest standards of environmental protection in the assessment of planning applications for all development proposals.

Rural Development

(D) 6.2.4 *Agriculture - Development Management Standards*

- Agriculture developments will be constructed and located so as to ensure that there is no threat of pollution to ground or surface waters.

(E) 6.3.1 *Fishing - Development Management Standards*

- Require that adequate provisions are made to accommodate free upstream and downstream migration of all fish in development proposals.
- Protection of water quality will be a primary consideration in relation to assessing development proposals.

(F) 6.4.2 *Extractive Industries - Development Management Standards*

- The Council will have regard to the following:
 - [Quarries and Ancillary Activities, Guidelines for Planning Authorities](#)⁶,
 - the [ICF Environmental Code](#)⁷
 - [Environmental Management Guidelines, Environmental Management in the Extractive Industry](#)⁸.
 - [Undertaking non-energy extractive activities in accordance with Natura 2000 requirements](#).

⁶ Department of the Environment, Heritage and Local Government, [Quarries and Ancillary Activities, Guidelines for Planning Authorities](#), 2004

⁷ Irish Concrete Federation, [Environmental Code](#), 2005

⁸ EPA, [Environmental Management Guidelines, Environmental Management in the Extractive Industry](#), 2006

- To NPWS [Guidelines for the protection of Biodiversity within the Extractive Industry](#) and the GSI's [Geological Heritage Guidelines for the Extractive Industry](#).
- The [Archaeological Code of Practice](#) agreed between the ICF and the National Monuments Division in Section 6.4.2 Development Management Standards.
- The Council will require adherence to the EPA Guidelines- Environmental Management in the Extractive Industry as a standard for the extractive industry in Kilkenny.
- Ensure that all existing workings shall be rehabilitated and that all future extraction activities will allow for the rehabilitation of pits and proper land use management.
 - The Council may require that development is phased and that each phase is rehabilitated before the next phase is developed/commenced;
 - The Council shall require applicants to submit a restoration programme with their application on the manner and timing of restoration;
 - The Council will consider the current land/quarry resource of the applicant and may seek that current quarries are restored before new sites are developed.
- To minimise environmental and other impacts of mineral extraction through rigorous application of licensing, development control and enforcement requirements for quarry and other associated developments including, but not limited to, consideration of visual impacts, methods of extraction, noise levels, dust prevention, protection of ground and surface waters, impacts on residential and other amenities, impacts on the road network (particularly with regard to making good any damage to roads), road safety, phasing, re-instatement and landscaping of worked sites.

(G) *7.3.4 Riverside Development*

Text:

Factors that will be taken into account when considering proposals affecting the rivers include:

- Any landscape or nature, built heritage or archaeological designation for the area,
- Any proposals to increase the extent of public access,
- The extent of any environmental improvements to the water environment and its surroundings,
- The nature of any recreation use proposed; and
- Any conflict or compliance with proposals for walking or cycling routes.

7.3.4.1 Development associated with Water Sports

Text:

The Council will normally only permit proposals for development associated with water sports adjacent to waterways and inland lakes where all the following criteria are met.

- The proposed facilities are compatible with any existing use of the water, including non-recreational uses;
- It will not have adverse impacts on any Natura 2000 site, will not result in damage to sites of nature conservation importance or features of the archaeological and built heritage;
- The development can be satisfactorily integrated into its landscape or townscape surroundings;
- The development will not have an unacceptable impact on visual amenity, having regard to the landscape character assessment; and
- The development will not result in over intensification of use leading to pollution, excessive noise and nuisance.

Natural Heritage

(H) *8.2.1.3 Rare and Protected Species and their Habitats*

Objectives

- To protect and, where possible, enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts). This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan.
- To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI94 of 1999).

Development Management standard

- Ensure that an ecological impact assessment is carried out for any proposed development likely to have a significant impact on rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

Text:

The Planning Authority will consult with the National Parks and Wildlife Service (a) in respect of any proposed development where there is a possibility that such development may have an impact on a protected area of international or national importance, and (b) 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.

(I) *8.2.2 Green Infrastructure*

Objectives

- To prepare and support the implementation of a Green Infrastructure Strategy for County Kilkenny, as resources allow.

(J) *8.2.3 Nature Conservation Outside of Internal and Nationally Protected Areas*

Objectives

- To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites. Appropriate mitigation and/or compensation measures to conserve biodiversity, landscape character and green infrastructure networks will be required where habitats are at risk or lost as part of a development.

(K) *8.2.5.1 Hedgerows*

Development management standards:

- To protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character of the county, and to ensure that proper provision is made for their protection and management, when undertaking, approving or authorising development.
- To ensure that when undertaking, approving or authorising development that sufficient information is provided to enable an assessment of impacts on woodlands, trees, and hedgerows.
- Require the planting of native broadleaved species, and species of local provenance, in new developments as appropriate. See Appendix G for a list of native trees and shrubs.

Objective

- Kilkenny County Council will promote the planting of native tree and shrub species, by committing to using native species (of local provenance wherever possible) in its landscaping work and on County Council property.

(L) *8.2.6 Inland Waters, Rivers, Streams, Wetlands and Groundwater*

Development management standard

- To consult with Inland Fisheries Ireland 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.
- Proposals must demonstrate that they will not adversely affect any habitats and/or species of interest or compromise the river's function as a green infrastructure corridor.

(M) *8.2.8 Invasive Species*

Text:

Invasive non-native plant and animal species (animals and plants that are introduced accidentally or deliberately into a natural environment where they are not normally found) are a significant threat to biodiversity. They can negatively impact on native species, can transform habitats and threaten ecosystems causing serious problems to the environment, buildings and the economy. The current estimate of the annual cost of invasive species in Ireland is €261 million. There is potential for the spread of invasive species during development works and recreational activities. A number of invasive species are prevalent in Kilkenny. For more information on invasive species see (www.invasivespeciesireland.com). The Council will raise awareness of, and promote best practise in the control of, invasive species.

Development management standard

Ensure, as far as is possible, that the potential for spread of invasive species is examined as part of any application.

(N) *8.2.9 Native Plant Species*

Text:

Where possible, the use of native plants and seeds from indigenous seed sources should be used on all developments and landscape projects/treatments. This is important as it:

- Contributes to national commitments on the conservation of biological diversity by establishing native habitats and reducing the planting and dispersion of non-native plants
- Ensures a reduction in the threat posed by the importation of pests and diseases carried on non-native (and non-indigenously sourced) plant material, which have potential for major impact on native flora and fauna, the landscape, agriculture and forestry
- Restores or compensates for loss of habitat
- Maintains regional identity, landscape character and diversity

Development Management Standard

- To promote the use of native plants and seeds from indigenous seed sources in all landscape projects.

(O) *8.3.11 Floodlighting*

Development Management Standards

- To require an assessment of the potential visual, heritage and environmental impacts of proposals to floodlight buildings and structures.
- To ensure the protection of the special character and setting of protected structures, ACAs and Recorded Monuments, and protected species when considering proposals for floodlighting.

Infrastructure

(P) *9.1.6 Water Services Objectives:*

- Meet in full the requirements of the E.U. Urban Waste Water Treatment and Water Framework Directives.

(Q) 9.2.5 Pollution Control Development Management Standards

- To ensure that developments which are subject to the requirements of the Air Pollution Act 1987 and Air Pollution (Licensing of Industrial Plant) Regulations 1988 or any subsequent regulations meet appropriate emission standards and other relevant national and international standards.
- To seek to minimise noise and dust through the planning process by ensuring that the design of developments incorporate measures to prevent or mitigate the transmission of dust, noise and vibration, where appropriate.
- Ensure traffic noise levels are considered as part of all new developments along major roads/rail lines.
- To ensure that lighting is carefully and sensitively designed
- To require that the design of external lighting minimises the incidence of light spillage or pollution into the surrounding environment.

(R) 9.2.8.3 Water Quality Objectives

- To promote compliance with environmental standards and objectives established—
 - for bodies of surface water, by the European Communities (Surface Waters) Regulations 2009;
 - for groundwater, by the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in the South East River Basin Management Plan.
- To complete the mapping of source protection areas and to map Source Protection Areas for any new public water supply schemes as appropriate.
- To ensure that Source Protection Areas are identified for any multiple unit housing developments with private water supplies.

9.2.8.4 Water Quality Development Management Standards

- To assess all new applications for single houses in accordance with the EPA manual entitled Code of Practice – Wastewater Treatment and Disposal Systems serving Single Houses (p.e. ≤ 10), also referred to as EPA 2009 or such guidance as may replace this guidance. The person carrying out the assessment will be suitably qualified and in the local authority's opinion, be competent to do so.
- To ensure that all industrial development is appropriately located, to seek effluent reduction and 'clean production' where feasible, and require that waste water treatment facilities are adequate, and that effluents are treated and discharged in a satisfactory manner.
- To have regard to the Groundwater Protection Scheme and the Water Services Acts 2007 & 2012 in decision-making on the location, nature and control of developments and activities in order to protect groundwater.
- New developments which include on-site wastewater treatment in an Extreme Vulnerability Inner Source Protection Area shall be restricted to the following categories:
 1. A dwelling for a full-time farmer
 2. An existing inhabited dwelling in need of replacement
 3. A second family dwelling on a farm where this is required for management of the farmPermission may be granted in the above instances subject to the following stipulations:
 - a) That an alternative site outside the Extreme vulnerability Inner Protection Area is not available
 - b) The existing water quality of the source is not subject to any significant nitrate and /or microbiological contamination.

(S) 9.2.11 Surface Water Drainage - Development Management Standards

- Development must, so far as is reasonably practicable, incorporate the maximum provision to reduce the rate and quantity of runoff e.g.:-
 - Hard surface areas (car parks, etc.), should be constructed in permeable or semi-permeable materials,
 - On site storm water ponds to store and/or attenuate additional runoff from the development should be provided,
 - Soak-aways or french drains should be provided to increase infiltration and minimise additional runoff.
- Individual developments shall be obliged, in all cases where surface water drainage measures are required, to provide a surface water drainage system separated from the foul drainage system.
- In the case of one-off rural dwellings or extensions, except in circumstances where an existing surface water drainage system is available to the proposed site for development and which, in the opinion of the planning authority has adequate capacity to accommodate the identified surface water loading, surface water shall be disposed of, in its entirety within the curtilage of the development site by way of suitably sized soak holes.
- For all other green-field developments in general the limitation of surface water run-off to pre-development levels will be required. Where a developer can clearly demonstrate that capacity exists to accommodate run-off levels in excess of green-field levels then the planning authority shall give consideration to such proposals on a case by case basis.
- In the case of brown-field development, while existing surface water drainage measures will be taken into account, some attenuation measures for surface water may be required at the discretion of the planning authority in the interests of balanced and sustainable development.
- In line with the above Kilkenny County Council will consider all drainage proposals consistent with SuDS (Sustainable Drainage Systems).
- For developments adjacent to watercourses of a significant conveyance capacity any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/maintenance. A setback of 5m-10m is required depending on the width of the watercourse. Development consisting of construction of embankments, wide bridge piers, or similar structures will not normally be permitted in or across flood plains or river channels.
- All new development must be designed and constructed to meet the following minimum flood design standards:-
 - Where streams open drains or other watercourses are being culverted - the minimum permissible culvert diameter is 900mm. (Access should be provided for maintenance as appropriate.)
- To give adequate allowance for climate change in designing surface water proposals a multiplication factor of 1.2 shall be applied to all river return periods up to 100 years except in circumstances where the OPW have provided advice specifying the particular multiplication factor for return periods up to 100 years. In the case of rainfall a multiplication factor of 1.1 shall be applied to rainfall intensities to make allowance for climate change requirements.
- In the design of surface water systems, regard shall be had to the Greater Dublin Regional Code of Practice for Drainage Works and associated GSDS technical documents.

Tables 4.3.3.1: Mitigatory Measures to ensure protection of Natura 2000 sites

Note: please refer to list above for details of measures A-S cited in the tables below.

Site	Cullahill Mountain cSAC (000831)
Sensitivity/ Threat	Loss of habitat from activities such as quarrying and wind energy development
Mitigation – Development Management Standards & Text of Plan	Measures A, B, F & H.

Site	Hugginstown Fen cSAC (000404)
Sensitivity/ Threat	Groundwater changes near alkaline fens
Mitigation – Development Management Standards & Text of Plan	Measures A, B, F & R.

Site	Galmoy Fen cSAC (001858)
Sensitivity/ Threat	Groundwater Changes near alkaline fens
Mitigation – Development Management Standards & Text of Plan	Measures A, B, F & R.

Site	Spa Hill & Clomangtah Hill cSAC (000849)
Sensitivity/ Threat	Loss of habitat through activities such as quarrying and telecommunications
Mitigation – Development Management Standards & Text of Plan	Measures A, B, F & H.

Site	The Loughans cSAC (000407)
Sensitivity/ Threat	Changes to groundwater quality or supply
Mitigation – Development Management Standards	Measures A, B, C, D, F, R & S.

& Text of Plan	
Site	Thomastown Quarry cSAC (002252)
Sensitivity/ Threat	Changes to groundwater quality and supply
Mitigation Development Management Standards & Text of Plan	– Measures A, B, F, R & S.

Site	Lower River Suir cSAC (002137)
Sensitivity/ Threat	<ul style="list-style-type: none"> • Disturbance from development/ drainage/ recreation/ hydro schemes • Changes to water quality or levels • Loss of habitat from development/ drainage/ recreation
Mitigation Development Management Standards & Text of Plan	– Measures A – S (inclusive) as listed above.

Site	River Barrow and River Nore cSAC (002162)
Sensitivity/ Threat	<ul style="list-style-type: none"> • Loss of habitat from development/ drainage/ recreation. • Disturbance from development/ drainage/ hydro schemes. • Changes to water quality or levels
Mitigation Development Management Standards & Text of Plan	– Measures A – S (inclusive) as listed above.

Site	River Nore SPA (004233)
Sensitivity/ Threat	<ul style="list-style-type: none"> • Loss of habitat and disturbance from development/ recreation. • Disturbance from development/ recreation. • Changes to water quality.
Mitigation Development Management Standards & Text of Plan	– Measures A – S (inclusive) as listed above.

4.4 Assessment of Mitigation Measures – timescale, effectiveness and implementation

Implementation of Mitigation Measures

The mitigation measures as outlined above – the objectives, development management standards and text of the plan will be applied to any development proposal within the area of the plan for County Kilkenny. Any plan, project or development proposal, both private and public, will be required to demonstrate how it will meet these standards and comply with the plan provisions through the development management process.

As part of the development management process – applications will be referred for comment to relevant statutory authorities for comments – including the National Parks and Wildlife Service and An Taisce. In addition monitoring of environmental standards will be carried out by the Environmental Protection Agency and Inland Fisheries Ireland. The Local Authority is required to demonstrate how it meets the requirements of various higher level directives and regional plans, such as the Water Framework Directives. From 2014 Irish Water will be the new water authority with responsibility for prioritisation of investment in water and wastewater projects.

Timescale of Mitigation Measures

The provisions of the development plan are effective for six years from the date of adoption of the plan. The mitigation measures will be implemented in most cases as development proposals and projects arise over the life of the plan. In general planning permissions last for five years from the date of grant of permission; the conditions attached to the grant of permission are valid both during construction of the development and over the life of the development.

Effectiveness of the Mitigation Measures

The plan promotes the strategic importance of the Appropriate Assessment process through its eminent position in chapter one of the plan and proposals for protection of the wider environment throughout the plan, in addition to specific references and objectives for the protection of Natura 2000 sites. The overall approach to the protection of the wider environment serves indirectly to maintain the integrity and conservation status of the Natura 2000 sites through preservation and extension of the green infrastructure networks which support species that depend on the Natura 2000 habitats and also for the protection and improvement of water quality in the county, which underpins the integrity of many of the Natura 2000 sites.

Two years after the adoption of the plan the Planning Authority is required to carry out a review of the progress of the provisions of the plan and will produce the Manager's Report on Progress of the Development Plan; which will highlight the effectiveness of achieving the objectives of the plan.

4.5 Appropriate Assessment Conclusion

The assessment process for this report has resulted in a conclusion that mitigatory measures identified in Stage 2 are adequate to ensure that the integrity of the sites in the Natura 2000 network will not be significantly affected as a result of potential impacts of the objectives contained within the Kilkenny County Development Plan 2014-2020. Therefore, Stage 3 (assessment of Alternative Solutions) and Stage 4 (Where no alternatives exist, an assessment of compensatory measures) are not necessary.

The assessment has been carried out by the Forward Planning Team with independent specialist ecological input from CAAS in the preparation of this report. This document has been produced by Kilkenny County Council to inform the development plan strategy and objectives in accordance with best practice to the meet the statutory requirements under the EU Habitats Directive.

5. AA Conclusion Statement

5.1 Summary of how the findings of the AA were factored into the Plan

As the AA process has been managed by the Forward Planning team, interaction has occurred from the early stages of writing of the draft plan to impress the importance of protection of the Natura 2000 network within the county and that the plan should be formulated to avoid adverse impacts on these sites. In relation to the smaller towns and villages the AA has informed the plan as it has been developed, and informed decisions relating the proposed settlement development boundaries in order to avoid encroachment and impacts on the designated site boundaries and on feeder streams into Natura 2000 sites. The AA process also influenced the Wind Energy Strategy, insofar as the Cullahill SAC was removed from an area 'preferred' for wind energy development. In addition the Strategic Environmental Assessment process has been taken into account in the appropriate assessment process. The screening of objectives and the assessment of objectives in the context of mitigation measures and potential impacts of the designated sites is an iterative process throughout each stage of the plan-making process.

5.2 Reasons for choosing the plan as adopted, in light of other reasonable alternatives considered as part of the AA process

A Stage 3 (Alternative Solutions) assessment was not required for this Development Plan.

As part of the Strategic Environmental Assessment process, 3 alternative Plans were put forward:

Alternative 1: Continued consolidation

Alternative 1 concentrates growth mainly into the seven main settlements of Kilkenny, Ferrybank, the Environs of New Ross, the District Towns of Callan, Castlecomer, Graiguenamanagh and Thomastown, with little growth being allocated to the smaller level settlements or to rural areas. Access to public transport is a guiding principle of this approach, and Thomastown, as the only District Town served by rail, is prioritised above the level of the other three District towns. Wind energy developments are concentrated only where they exist at present, with no allowance made for new locations.

Alternative 2: Dispersed growth

This scenario is one which places very few restrictions on development throughout the Plan area. No specific targets or limitations on growth would be set in the core strategy of the Plan for settlements within the county at a level lower than the hub and gateway. The 'pot' of zoned land, would be distributed amongst all remaining settlements without prioritisation. Development would be allowed to proceed in an ad hoc manner and would follow market forces to a great extent. Developments such as quarries and wind energy developments would be located where demand is greatest. Most development would occur on greenfield sites.

Alternative 3: Selection of new growth areas

This alternative acknowledges the designation of Kilkenny as a hub, and Waterford as a gateway within the National Spatial Strategy, but redesignates the 'District Towns'. The 2008 District Towns were designated on the basis of the [Regional Planning Guidelines](#), which categorised towns of between 1,500 and 5,000 as 'District Towns'. The 2011 Census shows that Castlecomer and Graiguenamanagh's populations did not reach the 1,500 mark. In this alternative, Piltown and Mooncoin, which have the next highest populations, are designated as District Towns in place of Castlecomer and Graiguenamanagh. As part of this alternative, new areas for wind energy

development would be selected on the basis of viability alone. Only those areas with highest wind speeds would be selected for wind farm development, regardless of landscape sensitivities or the presence or absence of existing wind farms.

Preferred Alternative

The preferred alternative which emerged from the evaluation process is Alternative 1, Continued Consolidation, with an element of Alternative 2, Dispersed Growth to encourage some level of growth of the smaller settlements to ensure that these smaller settlements are sustained. This was considered to be the best alternative for the following reasons:

- It concentrates populations into locations with existing services and facilities, and access to public transport.
- Investment in key infrastructure can be concentrated into a very small number of settlements.
- Sustainable travel is promoted.
- Valuable natural resources such as water quality are protected through targeted infrastructural measures.

5.3 Declaration that the plan as adopted will not have an adverse effect on the integrity of a Natura 2000 site(s)

The policies and objectives of the plan have been devised to anticipate and avoid the need for developments that would be likely to significantly and adversely affect the integrity of any Natura 2000 sites. Furthermore, such developments as will be permitted on foot of the provisions of this plan shall be required to conform with mitigatory measures contained in the Plan and to the relevant regulatory provisions for the prevention of pollution, nuisance or other environmental effects likely to significantly and adversely affect the integrity of Natura 2000 sites.

Having incorporated mitigation measures, it is considered that the Kilkenny County Development Plan will not have a significant adverse effect on Natura 2000 sites, and that the integrity of the Natura 2000 sites will not be adversely affected.

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www.birdwatchireland.ie Bird Watch Ireland

APPENDICES

Appendix 1 - Qualifying Interests and Conservation Status of Natura 2000 Habitats and Species

The National Parks and Wildlife Service are currently in the process of producing the draft 3rd Irish Report on the implementation of the EU Habitats Directive, and are holding public consultation on the conservation status of species and habitats. At the time of writing this report the conservation status of five habitats and species were publically available and have been taken into account in this assessment. The second report (2001 – 2006) The Status of EU Protected Habitats and Species in Ireland, 2008 focused on a first assessment of conservation status of all habitats and species of Community interest. The third report (2007 – 2013) repeats the conservation status assessments undertaken in 2007; the basic structure of the assessments is the same as that in the 2nd report, but there are changes in the detail of the data requested by the European Commission. The six-yearly reports required by the Habitats Directive are intended to track improvement in the conservation status of these habitats and species since the Directive came into force in 1994.

Table A1.1 - Natura 2000 sites in County Kilkenny

<i>Code</i>	<i>Habitat Name</i>	<i>Conservation Status (2008)</i>	<i>Overall Trend in Conservation Status (2013)</i>
(6210)	Semi-natural dry grasslands and scrubland facies on substrates (Festuco Brometalia)(*important orchid sites)	Bad	
(7230)	Alkaline fens	Bad	
(3180)	Turloughs	Poor	
(7220)	Petrifying springs with tufa formation (Cratoneurion)	Bad	Stable
(91E0)	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	Bad	Unfavourable – Bad due to the assessment of three of the four parameters (Area, Structure and Functions, and Future Prospects) as Unfavourable – Bad.
(91J0)	Yew Woodlands - <i>Taxus baccata</i> woods of the British Isles	Bad	Unfavourable Bad improving
(1330)	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Poor	
(1410)	Mediterranean salt meadows (Juncetalia maritimi)	Poor	
(3260)	Floating river vegetation - water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	Bad	
(91A0)	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles	Bad	If current levels of planting and non-native species removal are maintained, the overall condition of sessile oak woodlands will continue to improve.

(6430)	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	Poor	
(1130)	Estuary	Poor	
(1320)	Tidal mudflats - <i>Spartina</i> swards (<i>Spartinion maritimae</i>)	Poor	
(1310)	<i>Salicornia</i> mudflats - <i>Salicornia</i> and other annuals colonizing mud and sand	Poor	
(4030)	Dry heath - European dry heaths	Poor	
(6430)	Eutrophic tall herbs - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	Poor	
Species			
1095	Sea Lamprey (<i>Petromyzon marinus</i> -)	Poor	
1099	River Lamprey (<i>Lampetra fluviatilis</i> -)	Good	
1096	Brook Lamprey (<i>Lampetra planeri</i> -)	Good	
1029	Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i> -)	Bad	
1092	Crayfish (<i>Austropotamobius pallipes</i> -)	Poor	
1103	Twaite Shad (<i>Alosa fallax</i> -)	Bad	
1106	Atlantic Salmon (<i>Salmo salar</i> -)	Bad	
1355	Otter (<i>Lutra lutra</i> -)	Poor	Good
(1990)	Nore Freshwater Pearl Mussel – (<i>Margaritifera durrovensis</i>)	Bad	
(1016)	Desmoulin’s Whorl Snail - <i>Vertigo moulinsiana</i>	Bad	
(1421)	Killarney Fern – <i>Trichomanes speciosum</i>	Good	
Birds ⁹			
	Kingfisher (<i>Alcedo atthis</i>)	Amber List	

Table A1.2 Natura 2000 sites adjacent to County Kilkenny

Code	Habitat Name	Conservation Status (2008)	Overall Trend in Conservation Status (2013)
[6210]	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites)	Bad	
(4030)	European dry heath	Poor	
(4010)	Northern Atlantic wet heath with <i>Erica tetralix</i> '	Bad	
[3130]	Upland oligotrophic lakes - Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	Bad	

⁹ BirdWatch Ireland and the RSPB NI have agreed a list of priority bird species for conservation action on the island of Ireland. These Birds of Conservation Concern in Ireland are published in a list known as the BoCCI List. In this BoCCI List, birds are classified into three separate lists (Red, Amber and Green), based on the conservation status of the bird and hence conservation priority. The Red List birds are of high conservation concern, the Amber List birds are of medium conservation concern and the Green List birds are not considered threatened. Specific criteria are used to classify a bird into one of these three categories.

[3260]	Floating river vegetation - Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	Bad	
[4060]	Alpine and Boreal heaths	Poor	
[8210]	Calcareous rocky slopes with chasmophytic vegetation	Poor	
[8220]	Siliceous rocky slopes with chasmophytic vegetation	Poor	
[1393]	Slender Green Feather Moss - Drepanocladus (Hamatocaulis) vernicosus	Good	
[2130]	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	Bad	
[1140]	Mudflats and sandflats not covered by seawater at low tide	Poor	
[1210]	Annual vegetation of drift lines	Poor	
[1220]	Perennial vegetation of stony banks	Poor	
[1310]	Salicornia and other annuals colonizing mud and sand	Poor	
[1330]	Atlantic salt meadows (Glaucopuccinellietalia maritimae)	Poor	
[1410]	Mediterranean salt meadows (Juncetalia maritimi)	Poor	
[2110]	Embryonic shifting dunes	Poor	
[2120]	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	Bad	
[1130]	Estuaries	Poor	
[1420]	Mediterranean and thermo - Atlantic halophilous scrubs (Sarcocornetea fruticosi)	Bad	
[2110]	Embryonic shifting dunes	Poor	
[2120]*	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	Bad	
[91E0]	Alluvial wet woodland - Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	Bad	Unfavourable – Bad due to the assessment of three of the four parameters (Area, Structure and Functions, and Future Prospects) as Unfavourable – Bad.
(91A0)	Old oak woodlands - Old sessile oak woods with Ilex and Blechnum in British Isles	Bad	If current levels of planting and non-native species removal are maintained, the overall condition of sessile oak woodlands will

			continue to improve.
Species			
(1029)	Freshwater Pearl Mussel – <i>Margaritifera margaritifera</i>	Bad	
(1096)	Brook Lamprey – <i>Lampetra planeri</i>	Good	
(1099)	River Lamprey - <i>Lampetra fluviatilis</i>	Good	
(1103)	Twaite Shad – <i>Alosa fallax</i>	Bad	
(1106)	Atlantic Salmon – <i>Salmo salar</i>	Bad	
(1095)	Sea Lamprey - <i>Petromyzon marinus</i>	Poor	
(1355)	Otter – <i>Lutra lutra</i>	Poor	Good
Birds			
	Brent goose - <i>Branta bernicla hrota</i> [wintering]	Amber	
	Shelduck - <i>Tadorna tadorna</i> [wintering]	Amber	
	Pintail - <i>Anas acuta</i> [wintering]	Red	
	Oystercatcher - <i>Haematopus ostralegus</i> [wintering]	Amber	
	Golden Plover - <i>Pluvialis apricaria</i> [wintering]	Amber	
	Grey Plover - <i>Pluvialis squatarola</i> [wintering]	Amber	
	Lapwing - <i>Vanellus vanellus</i> [wintering]	Red	
	Sanderling - <i>Calidris canutus</i> [wintering]	Green	
	Dunlin - <i>Calidris alpina</i> [wintering]	Amber	
	Black-tailed Godwit - <i>Limosa limosa</i> [wintering]	Amber	
	Bar-tailed Godwit - <i>Limosa lapponica</i> [wintering]	Amber	
	Curlew - <i>Numenius arquata</i> [wintering]	Red	
	Redshank - <i>Tringa totanus</i> [wintering]	Red	
	Cormorant - <i>Phalacrocorax carbo</i> [breeding]	Amber	
	Peregrine - <i>Falco peregrinus</i> [breeding]	Green	
	Herring Gull - <i>Larus argentatus</i> [breeding]	Red	
	Chough - <i>Pyrrhocorax pyrrhocorax</i> [breeding]	Amber	

Appendix 2 Preliminary Screening Assessment of the Likely Effects of the Objectives of the Kilkenny County Development Plan 2014-2020 on Natura 2000 sites

The purpose of this Habitats Directive Screening is to determine whether the Kilkenny County Development Plan 2014-2020 is likely to have any significant impacts on the conservation objectives or qualifying interests of the Natura 2000 sites in County Kilkenny or within 15km of boundaries.

As part of the screening exercise all the objectives of the Development Plan were screened for their potential impact upon any of the identified Natura 20000 sites. The reasons for screening-in of objectives is based on the potential for objectives to result in:

- i. Potential for negative changes in key indicators of conservation value (water quality etc),
- ii. Potential disturbance to key species,
- iii. Potential reduction of habitat areas,
- iv. Potential habitat or species fragmentation, or
- v. Have a potential negative influence on climate change.

The potential impacts have been assessed in the absence of mitigation measures contained in the Plan, and the precautionary principle that the potential for effects cannot be ruled out, rather than the certainty of them occurring has been applied.

Table A2: Screening of Kilkenny County Development Plan 2014-2020 Objectives

Objective	Potential Impact on integrity of Natura 2000 sites?	Screen In/ Out	Reason for Screening In/ Out (note: refer to points (i)-(v) above for reasons for screening in)
Chapter 1: Introduction			
<p>Section 1.3 Appropriate Assessment</p> <ul style="list-style-type: none"> • To implement the provisions of Articles 6(3) and 6(4) of the EU Habitats Directive. • To ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with the Guidance Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and 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. <p>These objectives will apply to all plans and projects whether public or private and across all sectors of development.</p>	NO	OUT	No Potential Impacts
1.5 Structure of the Plan To implement the Development Management	YES	OUT	Potential for impacts is

Standards as set out in the Plan as appropriate.			avoided by virtue that the standards require best practice and to safeguard the environment.
Section 1.6.1 Climate Change To prepare a Climate Change Adaptation plan following the adoption of the Development Plan.	YES	OUT	Positive Impacts Only.
Chapter 3: Core Strategy			
Section 3.3 Settlement Hierarchy 3.3.2 Waterford Gateway (Ferrybank/ Belview) To implement the NSS and South East Regional Planning Guidelines by encouraging developments into the designated Hub of Kilkenny and the environs of the Waterford Gateway.	YES	IN	(i) (ii) (iii) (iv) (v)
To review the County Development Plan in the light of any emerging replacement to the NSS and South East Regional Planning Guidelines and vary the Development Plan accordingly if necessary.	YES	IN	(i) (ii) (iii) (iv) (v)
3.3.3 Large Town – the Environs of New Ross 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	YES	IN	(i) (ii) (iii) (iv) (v)
3.3.4 District Towns 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.	YES	IN	(i) (ii) (iii) (iv)
Promote enterprise and economic development in Graiguenamanagh in line with the Graiguenamanagh-Tinnahinch Development and Economic Study, 2006.	YES	IN	(i) (ii) (iii) (iv)
Section 3.4.1 Development Objectives for smaller towns and villages To facilitate development of housing, economic development, services and infrastructure in the smaller towns and villages of the county at a scale and character which is appropriate in order to sustain and renew populations and services in	YES	IN	(i) (ii) (iii) (iv)

these areas.			
<p>Section 3.5 Rural Settlement Strategy</p> <p>The objective of the Council’s rural housing strategy is to provide for sustainable rural communities without compromising the physical, environmental, natural or heritage resources of the county.</p> <p>This broad objective is underpinned by the following detailed objectives:</p> <ul style="list-style-type: none"> • Promote the sustainable development of rural areas. • Protect the quality and character of rural areas. • Protect the quality of the environment, including the prevention, limitation, abatement and/or reduction of environmental pollution and the protection of waters, groundwater and the atmosphere. • Protect features of the landscape and areas of major importance for wild fauna and flora. • Protect the character of the landscape, including views and prospects listed in this Plan and the amenities of places and features of natural beauty or interest. • Protect natural resources such as minerals and construction aggregates • Protect areas where sustainable energy production is feasible, such as high lying areas where wind energy production is acceptable in principle. 	YES	OUT	Broad objective is underpinned by detailed objectives which are designed to safeguard the environment.
Chapter 4: Economic Development			
<p>4.4.2 Agri-Food</p> <p>To ensure the highest standards of environmental protection in the assessment of planning applications for all development proposals.</p>	NO	OUT	No Potential Impacts
<p>4.4.3 Services Development</p> <p>To ensure an adequate amount of employment land on a campus type environment is available within the County for ICT and technology office based industry at the appropriate strategic locations.</p>	YES	IN	(i) (ii) (iii) (iv) (v)
<p>4.4.4 Tourism Arts and Leisure</p> <p>To deliver and implement the 6 projects associated with the Medieval Mile proposals during the lifetime of the Plan 2014 – 2020 for the city and county.</p>	YES	IN	(i) (ii) (iii) (iv) (v)

To continue the development of major flagship tourism projects within the county to enhance the tourism product for the county.	YES	IN	(i) (ii) (iii) (iv) (v)
Section 4.6 Strategic Locations for Enterprise and Employment			
4.6.1 Kilkenny City To ensure that an adequate quantity and range of land is available for enterprise development and that the appropriate infrastructure is provided.	YES	IN	(i) (ii) (iii) (iv) (v)
4.6.2 Belview Port Objectives: To deliver high speed broadband to the Belview port area within the lifetime of the Plan.	YES	IN	(i) (ii) (iii) (iv) (v)
To assist in the provision of natural gas supply to the port area within the life time of the plan	YES	IN	(i) (ii) (iii) (iv) (v)
To review the Ferrybank Belview Local Area Plan in 2015 continuing with the policy of partnership with the local community.	YES	IN	(i) (ii) (iii) (iv) (v)
4.6.3 District Towns Objective: To ensure the sustainable development of the District towns in the County to achieve their target populations and enhance their capacity to attract new investment in employment, services and public transport for the benefit of their own populations and that of their rural hinterlands.	YES	IN	(i) (ii) (iii) (iv)
To promote a diverse and sustainable local economy through the designation of sufficient lands for employment related uses, including facilities, to promote SME growth through the local area plans for the District towns.	YES	IN	(i) (ii) (iii) (iv)
To review the local area plans for the District towns in 2015 following the adoption of the county development plan.	YES	IN	(i) (ii) (iii) (iv) (v)
Section 4.8 Review of Retail Potential			
4.8.1.3 Out of Centre No further retail parks will be granted permission in and around the City and Environs over the period 2014 – 2020. In this regard, a cautious approach will be taken	NO	OUT	No Potential Impacts

regarding further such developments over the period of the strategy.			
4.8.2 Ferrybank/ Belview (Waterford City Environs) To engage with the other relevant local authorities within the region in the preparation of a joint retail strategy for the greater Waterford City area.	YES	IN	(i) (ii) (iii) (iv) (v)
4.8.3 District Towns To sustain and enhance the vitality and viability of the role and potential of the four District Towns.	YES	IN	(i) (ii) (iii) (iv)
4.9 Spatial Distribution of New Retail Development <ul style="list-style-type: none"> To improve convenience market share retained within the county to 80% post 2020. To improve comparison market share retained within the county to 75% post 2020 To increase convenience trade draw from 8% to 15% post 2020 To maintain comparison trade draw at 58% post 2020 	YES	IN	(i) (ii) (iii) (iv) (v)
Chapter 5 Housing and Community			
Section 5.2 Travellers To implement the Housing Strategy contained in Appendix B.	YES	IN	(i) (ii) (iii) (iv) (v)
To require 20% of the land zoned for residential use, or for a mixture of residential and other uses, be made available for the provision of social housing.	NO	OUT	No Potential Impacts
To require that a mixture of residential unit types and sizes are developed to reasonably match the requirements of different categories of households within the city and county.	NO	OUT	No Potential Impacts
Complete the review of the Traveller Accommodation programme.	NO	OUT	No Potential Impacts
To implement the Kilkenny Travellers Horse project.	NO	OUT	Positive Impacts Only
To redevelop the Wetlands halting site as a group housing scheme.	NO	OUT	Positive Impacts Only
To implement the provisions of the Traveller Accommodation programme.	NO	OUT	No Potential Impacts
Section 5.7 Education and Childcare			

<p>5.7.1 Childcare Facilities The Council will facilitate the provision of childcare and early childhood education facilities in a sustainable manner in appropriate locations which include the following: larger new housing estates, industrial estates and business parks, in the vicinity of schools, neighbourhood and district centres and adjacent to public transport facilities.</p>	NO	OUT	No Potential Impacts
<p>5.7.2.1 Primary and Post-Primary Schools The Council will liaise with the Department of Education and Skills, and all providers of education, to assist where possible in the development of adequate education centres, and to identify and facilitate of suitable sites for new educational facilities.</p>	NO	OUT	No potential impacts.
<p>5.8 Social Capital To integrate the planning and sustainable development of the county with regard to the social, community and cultural requirements of the county and its population.</p>	NO	OUT	No potential impacts
<p>Section 5.10 Library Service To progress and achieve the completion and opening of the new City Library at County Hall.</p>	NO	OUT	No Potential Impacts
Chapter 7 Recreation, Tourism and the Arts			
<p>7.1 Provision of Public Open Space and Recreational Facilities The Council shall seek the preservation and improvement of amenities and recreational amenity facilities, and shall facilitate and provide for the extension of recreational amenities in the county where appropriate, subject to environmental, heritage and financial considerations.</p>	YES	OUT	Objective contains safeguard to protect the environment and heritage.
7.2 Recreation and the Countryside			
<p>7.2.2 Walking and Cycling The Council will continue to assist and support the development of the Nore Valley Walk and protect its route from encroachment by unsympathetic development.</p>	YES	IN	(i) (ii) (iii) (iv) (v)
<p>To develop a walking and cycling strategy within the life of this plan.</p>	NO	OUT	(i) (ii) (iii) (iv) (v)

To protect the New Ross to Waterford railway line from encroachment by development and to retain its continuity.	NO	OUT	No Potential Impacts
To protect the Kilkenny to Portlaoise former railway line and spur line to Castlecomer from encroachment by development and support the development of a trail if feasible.	NO	OUT	No Potential Impacts
7.2.3 The Rivers Nore, Suir and Barrow			
7.2.6 Public Rights of Way The Council shall preserve and protect existing public rights of way which give access to seashore, uplands, riverbank or other places of natural beauty or recreational use.	NO	OUT	No Potential Impacts
To undertake a survey of existing public rights of way in the county and establish a register within the life of the Plan.	NO	OUT	No Potential Impacts
7.3 Urban Recreation – Parks			
7.3.1.1 Nore Linear Park Complete the development of the River Nore Linear Park within the lifetime of the Plan.	YES	IN	(i) (ii) (iii) (iv) (v)
7.9 Arts and Cultural Development To develop an arts venue within the county to fulfil a multiplicity artistic uses.	NO	OUT	No Potential Impacts
To implement the Kilkenny Local Authorities Arts Strategy.	NO	OUT	No Potential Impacts
Chapter 8 Heritage			
8.1 Introduction To implement, in partnership with the Kilkenny Heritage Forum and all relevant stakeholders, a County Heritage Plan and County Biodiversity Plan.	YES	OUT	Positive Impacts Only
8.2 Natural Heritage			
8.2.1.3 Rare and Protected Species and their Habitats To protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (EU Habitats Directive, EU Birds Directive).	YES	OUT	Positive Impacts Only
To protect and where possible enhance the natural heritage sites designated in National legislation	YES	OUT	Positive Impacts Only

(the Wildlife Acts and the Flora Protection Order). This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan.			
<p>8.2.2 Green Infrastructure</p> <p>To prepare and support the implementation of a Green Infrastructure Strategy for County Kilkenny, as resources allow.</p>	YES	OUT	Positive Impacts Only
<p>8.2.3 Nature Conservation Outside of Internal and Nationally Protected Areas</p> <p>To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites. 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 and green infrastructure networks.</p>	YES	OUT	Positive Impacts Only
<p>8.2.5.1 Hedgerows</p> <p>Kilkenny County Council will promote the planting of native tree and shrub species, by committing to using native species (of local provenance wherever possible) in its landscaping work and on County Council property.</p>	YES	OUT	Positive Impacts Only
<p>8.2.9 Landscape</p> <p>8.2.9.1 Landscape Character Assessment</p> <p>To protect and sustainably manage the landscape character of County Kilkenny, having regard to the findings of the landscape character assessment and the development management standards as set out in this chapter for the sustainable development of the county and appropriate conservation of its landscape character.</p>	YES	OUT	Positive Impacts Only
<p>8.2.9.4 Landscape Character Values</p> <p>To ensure that development within the Landscape Character Areas of Brandon Hill Uplands and the River Valleys of the Nore, Barrow and Suir, which are highly scenic and of significant visual amenity value, are carefully sited and designed and can be successfully assimilated into the landscape.</p>	NO	OUT	No potential Impacts

<p>8.2.9.6 Views and Prospects To preserve and improve places or areas from which views or prospects of special amenity value exist, as identified in Appendix I and on Figure 8.2.</p>	NO	OUT	No Potential Impacts
8.3 Built Heritage			
<p>8.3.1 Archaeological Heritage/ 8.3.2 Industrial Archaeology Protect archaeological sites and monuments (including their setting), underwater archaeology, and archaeological objects, including those that are listed in the Record of Monuments and Places, and in the Urban Archaeological Survey of County Kilkenny or newly discovered sub-surface and underwater archaeological remains.</p>	NO	OUT	No Potential Impacts
<p>8.3.3 Conservation Plans To facilitate and support the implementation of existing (and any further) conservation plans, as resources allow.</p>	NO	OUT	No Potential Impacts
<p>8.3.5 Architectural Heritage To ensure the protection of the architectural heritage of County Kilkenny by including all structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the Record of Protected Structures.</p>	NO	OUT	No Potential Impacts
To respond to the Ministerial recommendation to include in the Record of Protected Structures, structures which have been identified as being of Regional, National or International significance in the National Inventory of Architectural Heritage survey of the city and county published in 2006.	NO	OUT	No Potential Impacts
To carry out a review of the Record of Protected Structures.	NO	OUT	No Potential Impacts
<p>8.3.6 Architectural Conservation Areas General ACA Objectives To ensure the preservation of the special character of each ACA listed (Table 8.3)above and within the county particularly with regard to building scale, proportions, historical plot sizes, building lines, height, general land use, building materials, historic street furniture and paving.</p>	NO	OUT	No Potential Impacts
To designate ACAs where appropriate and provide	NO	OUT	No Potential

a local policy framework for the preservation of the character of these areas.			Impacts
Chapter 9 Infrastructure			
9.1.6 Water Services Objectives: Implement the programme as outlined in the Water Services Investment Programme.	YES	IN	(i) (ii) (iii) (iv) (v)
Meet in full the requirements of the E.U. Urban Waste Water Treatment and Water Framework Directives.	NO	OUT	No Potential Impacts
9.2.4 Pollution Control Objective To update Noise Mapping in accordance with revised or updated thresholds for Noise Mapping.	NO	OUT	No Potential Impacts
10.9.3.1 Water Quality Objectives To promote compliance with environmental standards and objectives established— <ul style="list-style-type: none"> for bodies of surface water, by the European Communities (Surface Waters) Regulations 2009; for groundwater, by the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in the South East River Basin Management Plan.	NO	OUT	Positive Impacts Only
To complete the mapping of source protection areas and to map Source Protection Areas for any new public water supply schemes as appropriate.	NO	OUT	No Potential Impacts
To ensure that Source Protection Areas are identified for any multiple unit housing developments with private water supplies.	NO	OUT	No Potential Impacts
9.2.9.1 Flood Management Objective To adopt a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk. In accordance with the Guidelines, the avoidance of development in areas where flood risk has been identified shall be the primary response.	NO	OUT	No Potential Impacts – concentrates on avoidance of development as primary response.
9.2.12.2 Waste Management Objective To implement the Joint Waste Management Plan for the South East Region.	YES	IN	(i) (ii) (iii) (iv) (v)
9.2.13.1 Seveso Objective To control the following for the purposes of	NO	OUT	No Potential Impacts

reducing the risk or limiting the consequences of a major accident: <ul style="list-style-type: none"> • The siting of Major Accident Hazard sites • The modification of an existing Major Accident Hazard site • Development in the vicinity of a Major Accident Hazard site 			
10.9.3.1 Metropolitan Area Networks To facilitate the delivery of high quality broadband to the District towns in the county.	YES	IN	(i) (ii) (iii) (iv) (v)
9.4.2.1 Telecommunications Antennae Objective To set up and maintain a register of approved telecommunications structures which will provide a useful input to the assessment of future telecommunications developments and would also be useful from the point of view of maximising the potential for future mast sharing and co-location.	NO	OUT	No Potential Impacts
Chapter 10 Renewable Energy Strategy			
10.4.2 Bioenergy Objectives Kilkenny County Council recognises the need to support the development of bioenergy resources. It will support suitable projects and recommends that anyone considering a project should consult the South East Regional Authority of Ireland's current Bioenergy Implementation Plan .	NO	OUT	No Potential Impacts
Facilitate the development of projects that convert biomass to energy.	YES	IN	(i) (ii) (iii) (iv) (v)
In general, direct commercial bioenergy plants to locate on brownfield sites which are adjacent to industrial areas or on lands which are reserved for industrial uses in any development plan. Brownfield sites in rural areas may also be considered.	YES	IN	(i) (ii) (iii) (iv) (v)
Ensure that any commercial bioenergy plant is close to the point of demand and is served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.	YES	IN	(i) (ii) (iii) (iv) (v)
Seek to respond positively to applications for waste to energy projects.	YES	IN	(i) (ii) (iii) (iv) (v)
10.6.3 Hydro Power Objectives Facilitate the development of appropriate projects	YES	IN	(i) (ii) (iii) (iv) (v)

that convert hydro power to energy.			
Have regard to the provisions of the Guidelines on the Planning, Design, Construction and Operation of Small Scale Hydro-Electric Schemes and Fisheries.	NO	OUT	No Potential Impacts
10.7.4 Solar Energy Objectives The Planning Authority will support and facilitate the development of passive solar design proposals for the development of houses in rural and urban areas, and will draw on the recommendations of the Kilkenny Rural House Design Guide, and the Guidelines on Sustainable Residential Development in Urban Areas.	NO	OUT	No Potential Impacts
The Planning Authority will make available advice on Passive Solar Design in preplanning consultations for domestic and commercial buildings.	NO	OUT	No Potential Impacts
Consider impacts of overshadowing on the efficiency of existing solar technologies when assessing planning applications.	NO	OUT	No Potential Impacts
Support applications to install solar panels on public buildings and schools within the county should the opportunity arise.	YES	OUT	Positive Impacts Only
10.8.3 Geothermal Energy Objectives Support the development of geothermal energy and heat pumps.	YES	IN	(i) (ii) (iii) (iv) (v)
10.9.1 Kilkenny Local Authorities Energy Efficiency To review the progress of the Climate Change Strategy, report on the progress to date, and thereafter develop a new strategy and action plan in line with national policy.	YES	OUT	Positive Impacts Only
10.9.4 Building Energy Performance Objectives Encourage high standards of energy efficiency in all building developments and encourage developers, owners and tenants to improve the environmental performance of the building stock, including the deployment of renewable energy.	NO	OUT	No Potential Impacts
Require a provisional BER certificate as part of any planning application, showing how the proposal will comply with Part L of the Building Regulations.	NO	OUT	No Potential Impacts
To require that planning applications for large	NO	OUT	No Potential

buildings, as defined by the Energy Performance of Building Regulations, demonstrate that due consideration has been given to the technical, environmental and economic feasibility of installing alternative energy systems in the proposed building, and that the use of such systems has been taken into account, as far as practicable, in the design of that building. This shall also apply to applications for ten or more housing units.			Impacts
Chapter 11 Transport			
11.1.1.1 Cycling Objective The Council will implement the provisions of the National Cycle Policy Framework where possible.	YES	IN	(i) (ii) (iii) (iv) (v)
11.3.2.1 Bus Objectives To facilitate the provision of bus shelters as appropriate.	NO	OUT	No Potential Impacts
To facilitate parking provision for tourist buses in towns and villages and at tourist attractions.	YES	IN	(i) (ii) (iii) (iv) (v)
11.7.8.1 Road Objectives To seek and support the implementation of the NRA projects as outlined. <ul style="list-style-type: none"> To preserve free from development proposed road realignment/improvement lines and associated corridors where such development would prejudice the implementation of National Roads Authority or County Council plans (See Figure 11.1) To seek an upgrade of the R700 between New Ross and Kilkenny to National Secondary status and to provide a relief road for Thomastown. To seek an upgrade of the Kilkenny to Urlingford Road (R693) to National Secondary status and to improve the road realignment in its entirety. To seek an upgrade of the New Ross to Mullinavat Regional Road (R704). Reserve the proposed line of the Western by-pass for the city from the Castlecomer Road to the Callan Road free from development. 	YES	IN	(i) (ii) (iii) (iv) (v)
Chapter 12 Requirements for Developments			
12.11 Zoning objectives Three zoning maps are included as part of this Development Plan; New Ross Environs, Bennettsbridge and Kilmacow, see Figures 3.14,	NO	OUT	Statement of Information only

3.15, 3.16.			
<p>Agriculture To conserve and protect agricultural land from interference from non-agricultural uses. To prevent development of agricultural land adjacent to development areas.</p>	NO	OUT	No potential Impacts
<p>Community Facilities To protect, provide and improve community facilities.</p>	YES	IN	(i) (ii) (iii) (iv) (v)
<p>General Development (Kilmacow & New Ross) To provide for the development and improvement of appropriate uses in areas where existing commercial uses have established and allow for the development of the settlement as a focus for local services, sustaining and strengthening its role as a population centre. The purpose of this zone is mainly to reflect the existing uses that have established in this zone and to allow for their improvement and expansion as necessary to improve retailing, residential, commercial, office, cultural and other uses appropriate to the further development of the settlement. Mixed Use Developments in 'General Development' Zones in Kilmacow: In order to promote mixed-use developments within the areas zoned for 'General Development' the following mechanism will be applied in appropriate locations:- (a) Residential use will be limited to 80% of the site area during the lifetime of this plan. (b) Where two separate planning uses are proposed, no one singular use will prevail in terms of >80% of the total site area.</p>	YES	IN	(i) (ii) (iii) (iv) (v)
<p>Industrial To provide for industrial and related uses.</p>	YES	IN	(i) (ii) (iii) (iv) (v)
<p>Industrial/Employment (Bennettsbridge) To provide for employment and related uses subject to the provision of necessary infrastructure. The zoning objective identifies areas suitable for employment provision, including, inter alia, industrial premises, light industry, warehouses, small and medium sized enterprise, office employment and retail, appropriate to the scale and character of the village. Particular</p>	YES	IN	(i) (ii) (iii) (iv) (v)

<p>consideration should be given to the further development, enhancement and facilitation of the crafts industry in the village. All development proposals need to demonstrate adequate provision of necessary physical infrastructure. Residential use would be considered only where no less than two separate planning uses are proposed (i.e. retail/residential or industry/residential etc.) and the residential component shall not comprise greater than 50% of the total gross floorspace. Any residential use will be subject to satisfactory arrangements in relation to the disposal of waste water.</p>			
<p>Mixed Use (New Ross Environs) To encourage the development of underutilised and brownfield lands with a view to consolidating and adding vitality to these areas and ensuring the efficient use of urban lands. A mix of uses such as residential, commercial, community, tourism and recreation are envisaged. Any retail development proposed shall comply with the requirements of the Retail Strategy. Significant development proposals on this site must be made in the context of a masterplan/design statement for the former Albatross site, situated in both the Kilkenny County Council and New Ross Town Council jurisdictions. This master plan shall be prepared in consultation with both these authorities. There shall be an emphasis on the attainment of an appropriate mix of uses to include recreation, leisure, tourism, offices, residential and public open spaces. Uses open for consideration will reflect the zoning objective above and will be agreed through the Master Plan process.</p>	<p>YES</p>	<p>IN</p>	<p>(i) (ii) (iii) (iv) (v)</p>
<p>Open Space/Recreation To preserve, provide and improve recreational open space and to allow for green links and biodiversity conservation.</p>	<p>YES</p>	<p>IN</p>	<p>(i) (ii) (iii) (iv) (v)</p>
<p>Phase 2 This land will not be released for development during the lifetime of this plan. The situation will be monitored on an ongoing basis. Expansion of existing land uses within the lands will be considered on a case by case basis having regard to the potential impacts on the strategic nature of the phase 2 lands and general planning considerations.</p>	<p>NO</p>	<p>OUT</p>	<p>No Potential Impacts</p>

To prohibit new residential development of phase 2 lands in the settlements of Bennettsbridge, Kilmacow and New Ross during the lifetime of the County Development Plan.			
Residential To protect and improve residential amenities and to provide for new residential development appropriate to the scale and character of the settlement.	YES	IN	(i) (ii) (iii) (iv) (v)
Residential (low density) To provide for low density residential development appropriate to the scale and character of the settlement. The maximum residential density to be permitted here shall be 5 dwellings to the acre, depending on servicing arrangements.	YES	IN	(i) (ii) (iii) (iv) (v)
New Residential (Bennettsbridge & Kilmacow) To provide for new residential communities and protect and enhance amenities of existing residential areas.	YES	IN	(i) (ii) (iii) (iv) (v)
Rural Conservation Area (Kilmacow) To provide for the development of agriculture and to protect the high amenity value and rural character of the area.	NO	OUT	No Potential Impacts
Village Centre To provide for the development and improvement of appropriate town centre uses and allow for the development of the village as a focus for local services, sustaining and strengthening its role as a population centre.	YES	IN	(i) (ii) (iii) (iv) (v)

Appendix 3 Finding of No Significant Effects Report for Natura 2000 sites outside of County Kilkenny and within 15km of the County Kilkenny border

A 'Finding of No Significant Impacts' table has been completed for Natura 2000 sites not in the county but within 15km of the Kilkenny county border.

Table A3: Finding of no significant effects report

Name of project or plan	Kilkenny County Development Plan 2014-2020
<p>Name and location of Natura 2000 site Sites located in adjacent counties and within 15km of the County Kilkenny border</p>	<ul style="list-style-type: none"> • Ballyprior Grassland SAC (002256) • Blackstairs Mountain SAC (000770) • Comeragh Mountains SAC (001952) • Tramore Dunes and Backstrand SAC (000671) & SPA (004027) • Bannow Bay SAC (000697) & SPA (004033) • Slaney River Valley SAC (000781) • Mid-Waterford Coast SPA(004193)
<p>Description of the project or plan:</p>	<p>The Kilkenny County Development Plan sets out the vision and an overall spatial strategy for the proper planning and sustainable development of County Kilkenny for a period of 6 years from the date of its adoption. The plan provides for sustainable development of the county in terms of physical growth and renewal, economic, social and cultural activity and environmental protection and enhancement within the context of the National Development Plan, the National Spatial Strategy and the Regional Planning Guidelines for the South East.</p>
<p>Is the project or plan directly connected with or necessary to the management of the site (provide details)?</p>	<p>No</p>
<p>Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?</p>	<p>The plan is set within the framework of higher level plans including the existing National Development Plan and the National Spatial Strategy and Regional Planning Guidelines. Development Plans for adjoining Counties:</p> <ul style="list-style-type: none"> • County Carlow Development Plan 2009 – 2015 • Wexford County Development Plan 2013-2019 • Waterford County Development Plan 2011-2017 • Laois County Development Plan 2012-2018 • Waterford City Development Plan 2013-2019 • North Tipperary County Development Plan 2010-2016 • South Tipperary County Development Plan 2009-2015 <p>The plan will influence investment programmes of various sections of the Council such as water services and roads.</p>
<p><i>The assessment of significance of effects</i></p>	

<ul style="list-style-type: none"> Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site. 	<p>The plan sets out strategy for hierarchical distribution of population, provides for economic development and zoning, sets out strategic locations for optimal location of economic concentration and development, provides for spatial distribution of retail development within the county. It also contains objectives for development of riverside walks, infrastructure projects including waste and broadband and contains a Renewable Energy Strategy and objectives to facilitate bioenergy, hydro-power and geothermal projects. The plan incorporates transport objectives for development which facilitates cycling, bus parking and road development and includes for zoning for a range of lands uses in New Ross Environs, Bennettsbridge and Kilmacow.</p>
<p>Explain why these effects are not considered significant.</p>	<p>Having assessed the likely direct, indirect or secondary impacts of the plan on the Natura 2000 sites listed above having regard to the elements of the plan likely to give rise to potential impacts on Natura 2000 sites, together with the sites' qualifying interests and threats to site integrity it is not considered likely that the effects will be significant as many of the threats to the sites arise from uses in close proximity to the site, whereas the sites are all located at some distance from the site boundary and when topography and hydrological links are examined there are was very little or no potential for impacts on the Natura 2000 sites from development facilitated by the plan.</p>
<p>List of agencies consulted: provide contact name and telephone or e-mail address.</p>	<p>National Parks and Wildlife Service, Jimi Conroy, Conservation Ranger (jimi.conroy@ahg.ie), Lorcan Scott (lorcan.scott@ahg.ie), District Conservation Officer, Dr. Linda Patton, Regional Ecologist (01-6678256).</p>
<p>Response to consultation</p>	<p>Responses received highlighted: The importance that the appropriate assessment procedure should take place in consultation with the teams working on the Plan and SEA as each process can help inform the other to ensure that the objectives and policies in the Plan will have no significant effects on any Natura 2000 site. The appropriate assessment should examine the effects of policies, objectives and any indicative maps or zonings, as well as cumulative impacts with other plans and projects both within and outside of the Plan area. In order to carry out the appropriate assessment you will need to collect information about the relevant Natura 2000 sites including their conservation objectives. The importance of the Invasive Species Regulations and that all plans and project that have the potential to impact on a Natura 2000 site should be AA screened and this should be flagged for a number of the plans/ projects listed (such as the Nore Linear Park and Local Area Plans). The importance of hydrological links to Natura 2000 sites from development which may be at a geographically remote location from the designated site. This report will be forwarded to the Development Applications Unit of the Department of the Environment, Community and Local</p>

	Government.
<i>Data collected to carry out the assessment</i>	
Who carried out the survey	Kilkenny County Council, Forward Planning Section, with specialist Ecologist input from CAAS.
Sources of Data	Existing data from National Parks and Wildlife Service, Department of the Environment, Community and Local Government; European Commission; Kilkenny County Council, Bird Watch Ireland.
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
Overall Conclusion	Stage 1 Screening indicated that the plan will not have a significant negative impact on the Natura 2000 sites listed above, therefore a Stage 2 Appropriate Assessment under Article 6(3) of the Habitats Directive 92/43/EEC is not required in relation to those sites which are outside of, but within 15km of the county border.

Appendix 4 – Water Schemes and Wastewater Treatment Plants in County Kilkenny

Table A4 (a) : Waste Water Treatment plants in Co. Kilkenny				
Name of plant	WWTP Type	Design P.E. (Population Equivalent)	Current load P.E. (Population Equivalent) as at 9/2/2012	Comment on upgrade
Ballyhale/Knocktopher	Secondary	400	505	Overloaded. Upgrade planned.
Ballyragget	Secondary	1,920	983	Capacity available
Bennettsbridge	Primary	500	1,425	Overloaded. Upgrade planned.
Callan	Secondary	4,000	5,280	Overloaded
Castlecomer	Secondary	2,540	1,311	Upgrade planned.
Clogh-Mooneenroe	Secondary	1,740	755	Upgrade planned.
Coan	Primary	75	30	Capacity available
Deerpark, Moneenroe	Primary	65	54	Capacity available
Dunamaggin	Secondary	150	100	Capacity available
Dungarvan	Primary	65	150	Overloaded. No immediate plans for upgrade.
Fiddown	Primary	300	608	Overloaded. Upgrade planned.
Freshford	Primary	400	1,000	Overloaded. Upgrade planned – funding dependant
Glenmore	Primary	250	220	Capacity available
Goresbridge	Primary	400	1,837	Overloaded. Upgrade funding dependant.
Gowran	Secondary	1,600	701	Capacity available
Graiguenamanga	Secondary	3,000	1,270	Capacity available
Inistioge	Primary	400	330	Overloaded. Upgrade funding dependant.
Johnstown	Primary	900	990	Overloaded. Upgrade funding dependant.
Kells	Secondary	300	320	Overloaded. No immediate plans for upgrade.
Kilkenny City Purcellsinch	Secondary	107,650	54,504	Purcellsinch. EIS application for major upgrade given approval by An Bord Pleanála.
Kilkenny Sion Road	Primary	21	21	
Kilmacow	Secondary	2,500		New plant. Capacity available.
Kilmaganny	Primary	245	275	
Kilmanagh	Primary	50	30	
Ballyhale/Knocktopher	Secondary	400	505	Overloaded. Upgrade planned.
Mooncoin	Secondary	2,800	612	Capacity available
Ballygriffin, Mooncoin	Primary	30	30	

Mullinavat	Primary	280	520	Overloaded. Upgrade post 2013 & funding dependant.
New Ross (Environs)	Secondary	1,900	200	New plant in Co. Wexford. Design PE represents capacity reserved for Kilkenny County Council. Capacity available. Total Design PE 16,000, PE used 10,013)
Paulstown	Secondary	1,000	665	Upgrade planned.
Piltown	Secondary	1,500	2,096	Overloaded. Upgrade funding dependant.
Skeaghvosteen	Primary	27	27	
Slieverue	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. (Total PE 190,600, used 122,588)
Stoneyford	Secondary	500	614	Overloaded. Upgrade funding dependant.
Thomastown	Secondary	7,500	2,049	Capacity available
Tullaroan	Primary	150		
Urlingford	Secondary	1,500	2,015	Overloaded. Upgrade planned.
Windgap	Primary	27	27	

Table 4A (b): Water Supply Schemes

Water Supply Name	Comment on capacity	Upgrade
Ballyragget Ws 1001	Capacity Available	
Bennettsbridge Regional Ws 1002	Capacity Limited	
Callan Ws 1003	Capacity Available	
Castlecomer (Old) Ws 1004	Capacity Limited	
Clogh-Castlecomer Ws 1005	Capacity Limited	Prioritised for upgrade
Glenmore Ws 1006	Capacity Limited	
Gorteen Ws 1016	Capacity Limited	
Gowran-Goresbridge-Paulstown Ws 1007	Capacity Limited	Prioritised for upgrade
Graiguenamanagh Ws 1008	Capacity Limited	
Inistioge Ws 1009	Capacity Limited	
Kilkenny City (Radestown) Ws 1010	Capacity Available	Prioritised for upgrade
Kilkenny City (Troyswood) Ws 1011	Capacity Available	
Kilmaganny Ws 1019	Capacity Limited	
Lois Na Si Ws 1018	Closed	
Mooncoin Regional Ws 1012	Capacity Available	Prioritised for upgrade
Piltown Ws 1013	Capacity Limited	
Silversprings Ws 1017	Closure proposed	
South Kilkenny Environs Ws 1020	Capacity Available	
Thomastown Ws 1014	Capacity Limited	Prioritised for upgrade
Urlingford-Johnstown Ws 1015	Capacity Limited	

Appendix 5 Habitats Directive Assessment Determination

Comhairle Chontae Chill Chainnigh
Halla an Chontae Sraid Eoin Cill Chainnigh

Kilkenny County Council
County Hall John Street Kilkenny



Serving People - Preserving Heritage

Kilkenny County Development Plan 2014-2020

Habitats Directive Assessment Determination

The Habitats Directive Assessment carried out under Article 6(3) of the Habitats Directive determined that the Kilkenny County Development Plan 2014-2020 will not adversely affect the integrity of a Natura 2000 site(s). While a number of objectives in the Plan were identified as having the potential to adversely affect the integrity of a Natura 2000 site(s), mitigation measures have been identified which it is envisaged will negate any such adverse effects on the integrity of the Natura 2000 sites in view of their conservation objectives.

Denis Malone
Senior Planner
Planning Department
May 2014

