

APPROPRIATE ASSESSMENT

IN SUPPORT OF

PROPOSED AMENDMENT No. 2

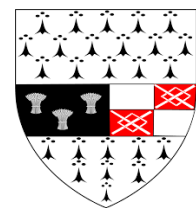
TO THE

CALLAN LOCAL AREA PLAN 2009 – 2020

IN ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

for: Kilkenny County Council

John Street
Kilkenny



by: CAAS Ltd.

2nd Floor, The Courtyard
25 Great Strand Street
Dublin 1



JANUARY 2016

Table of Contents

Section 1	Introduction.....	1
1.1	Background.....	1
1.2	Legislative Context	1
1.3	Stages of Appropriate Assessment	2
Section 2	Stage 1 Screening	3
2.1	Description of Proposed Amendment No. 2	3
2.2	European sites within 15 km of the Lands Referred to by Proposed Amendment No. 2.....	6
2.3	Assessment Criteria	11
2.4	Other Plans and Projects	13
2.5	Conclusion of Screening Stage	16
Section 3	Stage 2 Appropriate Assessment.....	17
3.1	Introduction	17
3.2	Potential Significant Effects	17
3.3	Conservation Objectives	19
Section 4	Mitigation Measures	22
4.1	Introduction	22
4.2	Existing Policies and Objectives that offer Protection to European Sites	22
4.3	Recommendations	24
Section 5	Conclusion.....	26

List of Tables

Table 1	European sites within 15 km of the Lands Referred to by Proposed Amendment No. 2.....	9
Table 2	Screening of European Sites within 15 km of the Proposed Amendment lands.....	13
Table 3	Plans & Programmes Likely to Cause In-Combination Effects.....	13

List of Figures

Figure 1	Location and extent of the proposed extension of the LAP boundary	5
Figure 2	European sites within 15km of the Proposed Amendment lands.....	7
Figure 3	Aerial photograph showing location of the Proposed Amendment lands at Westcourt in relation to the River Barrow and River Nore cSAC. @ ESRI.	8

Section 1 Introduction

1.1 Background

This document presents the Appropriate Assessment (AA) of Proposed Amendment No. 2 to the Callan Local Area Plan (LAP) 2009-2020 in accordance with the requirements of Article 6(3) of the EU Habitats Directive¹.

This report is divided into the following five sections:

Section 1	Introduction
Section 2	Stage 1 Screening
Section 3	Stage 2 Appropriate Assessment
Section 4	Mitigation
Section 5	Conclusion

1.2 Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. In Ireland, these are candidate Special Areas of Conservation (cSACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC), hereafter referred to as European sites.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites. Article 6(3) establishes the requirement for AA:

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

If, in spite of a negative assessment of the implications for the [Natura 2000] 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 a social or economic nature, Member States 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 Directive 92/43/EEC

These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011. These regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in judgements of the Court of Justice of the European Union (CJEU).

1.3 Stages of Appropriate Assessment

This Natura Impact Report has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2010.*
- *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, European Commission Environment DG, 2002.*
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC: European Commission, 2000.*

AA comprises up to four successive stages:

Stage One: Screening

The process which identifies the likely impacts upon a European site of a project or 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 European site of the project or 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. If adequate mitigation is proposed to ensure no significant adverse impacts on European sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage 3.

Stage Three: Assessment of Alternative Solutions

The process which examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

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

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

In the case of this Natura Impact Report, it was found that the Proposed Amendment required assessment to Stage 2 Appropriate Assessment.

Section 2 Stage 1 Screening

2.1 Description of Proposed Amendment No. 2

2.1.1 Description of the Callan Local Area Plan

The Callan Local Area Plan 2009-2020 (the Plan) has been prepared in accordance with the requirements of the Planning and Development Act 2000, as amended, and sets out an overall strategy for the proper planning and sustainable development of the town. Since the Plan's initial conception, it has been extended to the year 2020, and has been subject to two amendments. The Plan comprises the statutory land use plan for the town in the promotion and regulation of development and therefore provides a clear vision for Callan, providing for the needs of the existing and future population. It provides for the development of Callan by setting out zoning and other objectives for the proper planning and sustainable development of the town, considering the needs of the town, and informing and coordinating decisions on planning applications. The Plan plays a key role in translating overarching policies and objectives of the Kilkenny County Development Plan at the local level. The Callan Local Area Plan 2009 - 2020 is consistent with the County Development Plan and sets out detailed policies and objectives which control the development of the area within the town's boundary as defined by this Plan.

The Proposed Amendment to the Callan Local Area Plan under consideration in this AA relates to the proposed extension of the LAP boundary to include an 8 acre site at Westcourt, Callan as described in further detail in Section 2.1.2 below.

2.1.2 Description of Proposed Amendment to the Callan LAP

The Proposed Amendment involves the extension of the LAP boundary to include an 8 acre site at Westcourt, Callan as per revised Figure 4.2 Zoning Map for Callan LAP (overleaf). The land will be zoned 'Agriculture'. The 'Agriculture' zoning objective to be included in the Plan is as follows:

Objective: To conserve and protect agricultural land from interference from non-agricultural uses. To prevent development of agricultural land adjacent to development areas which would prejudice the future expansion of the town, except in exceptional circumstances where there are site specific development objectives for the provision of certain types of development.

Permissible uses: Agriculture, horticulture, public service installations, uses identified in site specific development objectives.

Open for Consideration: Public open space, guesthouse, restaurant, nursing home, dwelling houses in certain limited cases, halting site, private open space, other uses not contrary to the proper planning and sustainable development of the area.

It is proposed to include a site specific objective for this land as follows:

To facilitate the development of a residential complex (10 units approx.) initiated by the Camphill Community with ancillary small scale socio-economic uses related to the activities of the residents of the development, and to provide for a pedestrian link from the lands to the town centre, subject to the following:

- *The development must not interfere with the ecological integrity of the adjacent Kings River which forms part of the River Barrow and River Nore SAC, a Natura 2000 site. Any future development (including pedestrian link) of the lands will be subject to Appropriate Assessment in accordance with Article 6 of the Habitats Directive.*
- *A site-specific Flood Risk Assessment appropriate to the type and scale of the proposed development and a site specific justification test if required must be*

submitted at planning application stage in line with the DoEHLG Guidelines "The Planning System and Flood Risk Management", November 2009. Residential use is excluded from Flood Zone B.

- *Any developments proposed for the lands at Westcourt must be connected to the foul sewer network for treatment of waste water. Such developments will only proceed subject to the local treatment plant having capacity to adequately treat the additional load. It must be shown by proposals that all storm water can be appropriately collected, stored and treated so as not to affect the quality of water bodies.*
- *The archaeological importance of the site must be safeguarded by protecting archaeological sites and monuments (including their setting), 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 archaeological remains. Any proposed development in the vicinity or confines of archaeological monuments will require an archaeological assessment and the preparation of an archaeological impact statement for submission as part of any planning application for development within this area.*
- *When innovative layouts and exceptional design for living are achieved, strict adherence to the development management standards for new residential developments as set out in Chapter 12 of the County Development Plan 2014-2020 will not be required, provided the proposed designs can be demonstrated to satisfy the social and physical needs of the occupants.*

The proposed addition of 8 acres will increase the LAP lands by 1.5% (Plan area is currently 516 acres approx). The location and extent of the proposed LAP boundary is presented in Figure 1 below.

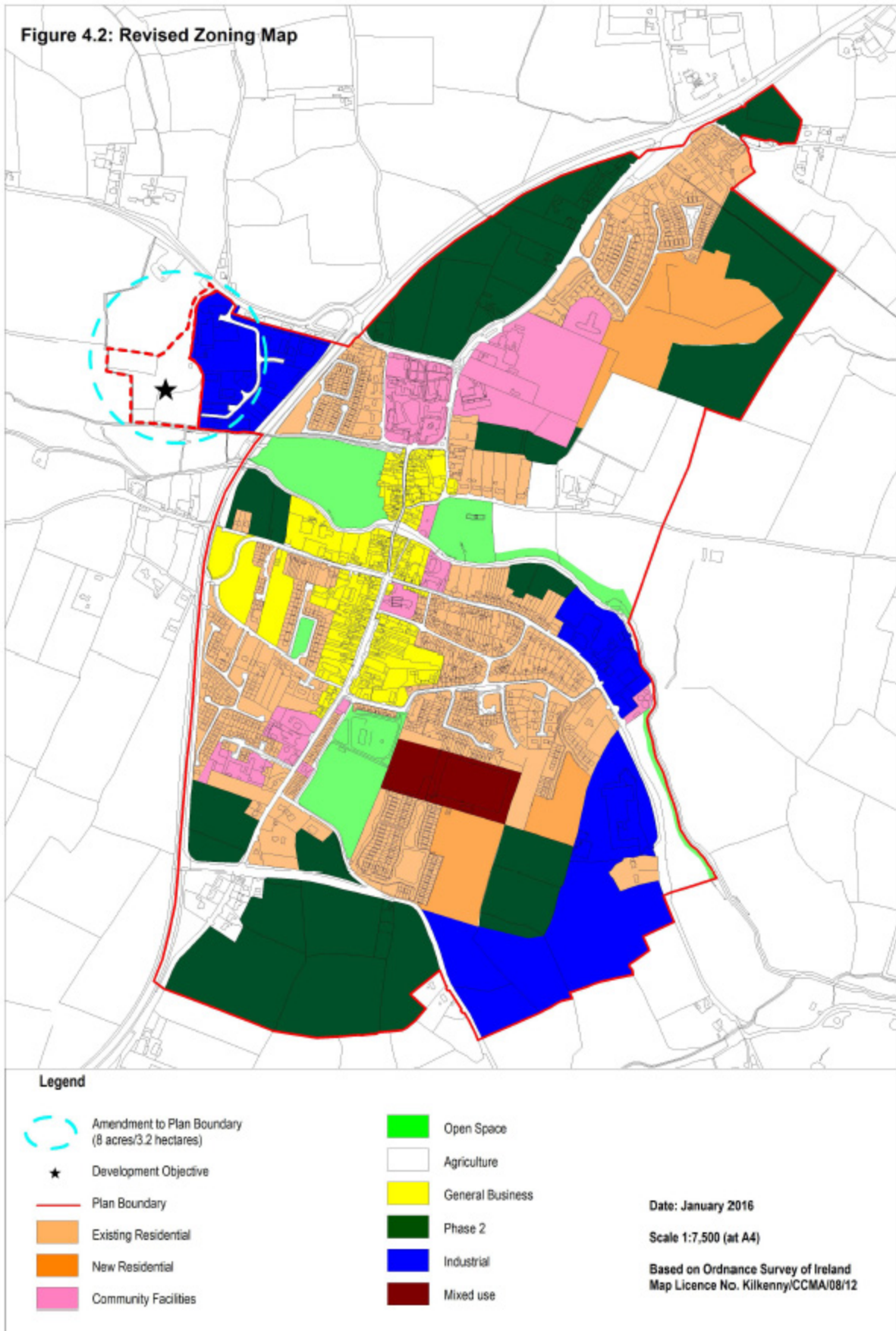


Figure 1 Location and extent of the proposed extension of the LAP boundary

2.2 European sites within 15 km of the Lands Referred to by Proposed Amendment No. 2

2.2.1 cSACs and SPAs

This section of the screening process describes the European sites within 15km of the lands referred to by the Proposed Amendment No. 2. A distance of 15 km is currently recommended in the DoEHLG document *Guidance for Planning Authorities*² and as a precautionary measure, to ensure that all potentially affected European sites are included in the screening process. A map indicating the locations of the sites in relation to the lands referred to by the Proposed Amendment is presented in Figure 2. A larger scale map showing the location of the proposed Amendment Lands in relation to the River Barrow and River Nore cSAC is presented in Figure 3.

Table 1 lists the European sites that occur within 15 km of the lands referred to by the Proposed Amendment. The qualifying features for each site have been obtained through a review of information pertaining to each site available from the NPWS website.

Information regarding the main threats to European sites was derived from a variety of sources:

- *Ireland's Article 17 Report to the European Commission "Status of EU Protected Habitats and Species in Ireland" (NPWS, 2008)*
- *Site Synopses*
- *NATURA 2000 Standard Data Forms*
- *Detailed Site Specific Conservation Objectives and supporting documents (where available)*

Since the conservation management objectives for the European sites focus on maintaining the favourable conservation status of the qualifying interests of each site, the Screening process concentrated on assessing the potential implications of the Proposed Amendment against the qualifying interests of each site.

² DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.

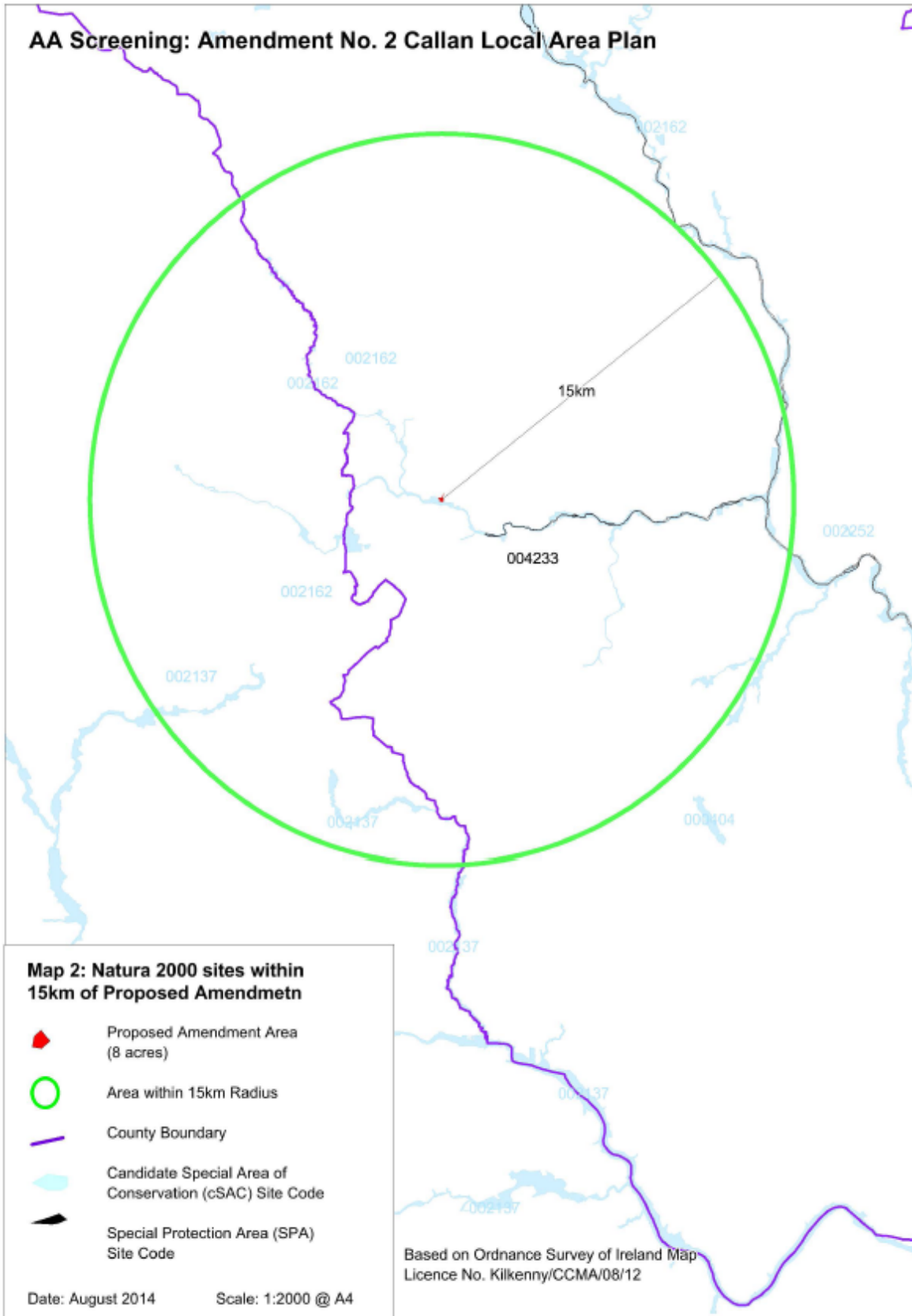




Figure 2 European sites within 15km of the Proposed Amendment lands



Legend

-  Amendment To Plan Boundary (approximate)
-  River Barrow and Nore cSAC

Scale: 1:7,500

0 75 150 300 Meters



Figure 3 Aerial photograph showing location of the Proposed Amendment lands at Westcourt in relation to the River Barrow and River Nore cSAC. @ ESRI.

Table 1 European sites within 15 km of the Lands Referred to by Proposed Amendment No. 2

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
002162	River Barrow and River Nore cSAC	<p>Annex I Habitats</p> <p>[1130] Estuaries [1140] Tidal Mudflats and Sandflats [1310] Salicornia mud [1320] Spartina Swards [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [3260] Floating River Vegetation [4030] Dry heath [6430] Hydrophilous Tall Herb [7220] Petrifying springs* [91A0] Old Oak Woodlands [91E0] Residual Alluvial Forests*</p> <p>Annex II Species</p> <p>[1016] Desmoulin's whirl snail (<i>Vertigo moulinsiana</i>) [1029] Freshwater pearl mussel (<i>Margaritifera margaritifera</i>) [1092] White-clawed crayfish (<i>Austropotamobius pallipes</i>) [1095] Sea lamprey (<i>Petromyzon marinus</i>) [1096] Brook lamprey (<i>Lampetra planeri</i>) [1099] River lamprey (<i>Lampetra fluviatilis</i>) [1102] Allis shad (<i>Alosa alosa</i>) [1103] Twaite shad (<i>Alosa fallax fallax</i>) [1106] Salmon (<i>Salmo salar</i>) [1355] Otter (<i>Lutra lutra</i>) [1421] Killarney fern</p>	<p>The principle threats to the River Barrow and River Nore cSAC are pollution caused by increased fertiliser application, sewage and industrial waste. Species such as Freshwater Pearl Mussel are highly susceptible to siltation of water course and proposed developments in the vicinity of the cSAC may give rise to siltation and run-off of pollutants.</p> <p>The river has also been designated for its population of otter, a species vulnerable to the felling of mixed wood and scrub. Otters may become displaced due to disturbance during the development of unmitigated residential areas in proximity to the cSAC.</p>

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
		(<i>Trichomanes speciosum</i>) [1990] Pearl mussel (<i>Margaritifera durrovensis</i>)	
002137	Lower River Suir cSAC	<p>Annex I Habitats [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [3260] Floating River Vegetation [6430] Hydrophilous Tall Herb [91A0] Old Oak Woodlands [91E0] Residual Alluvial Forests* [91J0] Yew Woodlands*</p> <p>Annex II Species [1029] Freshwater pearl mussel (<i>Margaritifera margaritifera</i>) [1092] White-clawed crayfish (<i>Austropotamobius pallipes</i>) [1095] Sea lamprey (<i>Petromyzon marinus</i>) [1096] Brook lamprey (<i>Lampetra planeri</i>) [1099] River lamprey (<i>Lampetra fluviatilis</i>) [1102] Allis shad (<i>Alosa alosa</i>) [1103] Twaite shad (<i>Alosa fallax fallax</i>) [1106] Salmon (<i>Salmo salar</i>) [1355] Otter (<i>Lutra lutra</i>)</p>	Water quality of this site is vulnerable to enrichment from surrounding agricultural activities and commercial and private developments near the river edge. Infilling and drainage threatens the continued presence of the rare plant species <i>Hordeum secalinum</i> and <i>Groenlandia densa</i> . Drainage in the catchment results in flash floods which can have a negative impact on the many Annex II species present. Any further planting or spread of exotic species would be damaging to the existing woodland habitats.
004233	River Nore SPA	[A229] Kingfisher (<i>Alcedo atthis</i>)	There are no reported threats to this SPA. Kingfisher would be vulnerable to disturbance during the breeding season. They nest within burrows on river banks.

2.3 Assessment Criteria

2.3.1 Is the Plan Necessary to the Management of European Sites?

Under the Habitats Directive, Plans that are directly connected with or necessary to the management of a European site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s). The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site(s).

The primary purpose of the proposed Amendment to the Callan LAP is not the nature conservation management of European sites but to provide for development. Therefore, the proposed Amendment is not considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

2.3.2 Elements of the Proposed Amendment to the Callan LAP with Potential to Give Rise to Effects

An assessment of the potential for effects on European sites to arise due to the proposed Amendment is presented in the following sections. The assessment considers the full range of effects including direct, indirect and cumulative. The changes to the boundary of the LAP and the associated land use zoning provided for by the Proposed Amendment would facilitate the development of a residential complex within the lands in question. The lands occur directly adjacent to the River Barrow and River Nore cSAC.

The activities that could be associated with development of these lands that could give rise to effects on European sites are as follows:

- Site clearance and construction works (associated with development of the lands and the possible provision of a footpath / pedestrian route between the lands and Callan town centre). Such development could potentially give rise to habitat loss, disturbance to key species and changes in key indicator values for conservation status;
- Increases in human activity allowed for by the changes in landuse could give rise to disturbance effects to key species;
- Alteration of hydrological characteristics of the lands could impact on aquatic ecosystems of European sites downstream by alteration of quantity / quality of surface water run-off.

2.3.2.1 Direct, Indirect or Secondary Impacts

As outlined in the European Commission Environment DG document "Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC", impacts that could potentially occur through the implementation of the Proposed Amendment can be categorised under a number of headings:

- Loss / reduction of habitat area (e.g. due to the development of new projects);
- Disturbance to Key Species (e.g. increased public access to protected sites, or during the construction phase of infrastructure projects);
- Habitat or species fragmentation;
- Reduction in species density;
- Changes in key indicators of conservation value such as changes in water quality / quantity (e.g. through inadequate wastewater treatment, run-off of pollutants during construction and operation of developments).

In determining the potential for significant effects, a number of factors have been taken into account.

Firstly, the sensitivity of the European sites as outlined in Table 1. Secondly, the Proposed Amendment to the Callan LAP and the potential effects its adoption could have on European sites in the surroundings. The relationships between the lands subject to the Proposed Amendment and the European sites were also taken into account, such as proximity and hydrological linkages. The potential for effects to arise as a result of these relationships is discussed below. The outcome of the screening is then summarised in Table 2 below.

In summary, it is concluded that there is potential for significant impacts, if unmitigated, on the River Barrow and River Nore cSAC due to the proposed extension of the LAP lands and associated zoning (including site specific objectives) of the lands in question. Impacts resulting from this change in land use could potentially lead to habitat loss, disturbance to key species, deterioration in water quality and alteration of hydrological regime due to developments directly adjacent to the cSAC.

Considering the location of the River Nore SPA, and the known ecology and sensitivities of Kingfisher (qualifying feature for which site is designated), potential for adverse impacts on the SPA are not foreseen therefore the site can be excluded from further consideration in the AA.

No pathways for potential impacts exist between the lands under consideration in the proposed amendment and the River Suir cSAC, and therefore potential significant effects are ruled out and the site is excluded from further consideration in the AA.

Table 2 Screening of European Sites within 15 km of the Proposed Amendment lands

Site Name	Potential Impacts arising from the Proposed Amendment	AA Required
River Barrow and River Nore cSAC (002162)	<p>Development of lands directly adjacent to the cSAC as provided for by the proposed amendment could potentially lead to the following impacts on the conservation interest of the cSAC:</p> <ul style="list-style-type: none"> Habitat loss associated with the construction of a pedestrian route between the lands; <p>Disturbance to key species due to development works adjacent to the cSAC and increased human activity in the area;</p> <p>Alteration in water quality of the cSAC due to any changes in surface water discharges from the site during construction or operational phase.</p>	Yes
Lower River Suir cSAC (002137)	The Callan area is located outside of the catchment of the River Suir cSAC. Development facilitated under the Proposed Amendment to the plan is therefore unlikely to have impacts on the qualifying interests of the Lower River Suir cSAC.	No
River Nore SPA (004233)	The SPA is located ca 2km downstream from the lands that are subject to the Proposed Amendment. Kingfisher are known to breed and forage within the confines of the river corridor. Considering the scale and characteristics of any development within the subject lands, disturbance impacts on Kingfisher occurring within the river corridor and downstream SPA are not foreseen. Similarly, the SPA is sufficiently removed that indirect impacts on the population of Kingfisher within the SPA are not foreseen.	No

2.4 Other Plans and Projects

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combination with the plan or project, have the potential to adversely impact upon European sites. Table 3 lists the plans or programmes that may interact with the Callan LAP to cause in-combination effects to European sites. The plans or programmes are listed according to a four tier spatial hierarchy: International; National; Regional; and Local.

Table 3 Plans & Programmes Likely to Cause In-Combination Effects

Directive	Purpose	Interactions resulting in Cumulative Impacts
International		
EU Water Framework Directive (2000/60/EC)	Objectives seek to maintain and enhance the quality of all surface waters in the EU.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Freshwater Fish Directive (78/659/EEC)	Objectives seek to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations. For those waters it sets physical and	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.

Directive	Purpose	Interactions resulting in Cumulative Impacts
	chemical water quality objectives for salmonid waters and cyprinid waters.	
EU Groundwater Directive (2006/118/EC)	This directive establishes a regime, which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Floods Directive (2007/60/EC)	The Floods Directive applies to river basins and coastal areas at risk of flooding. With trends such as climate change and increased domestic and economic development in flood risk zones, this poses a threat of flooding in coastal and river basin areas.	Potential in-combination impacts may arise, if unmitigated, where there is a requirement to provide for new infrastructure such as flood walls or flood defences. Avoidance on, or near protected areas should be implemented or where this is not possible, favouring infrastructure that carries a lower risk of damage to protected areas should be emphasised in the plan.
Nitrates Directive (91/676/EEC)	This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further pollution.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Urban Wastewater Treatment Directive (91/271/EEC)	The primary objective is to protect the environment from the adverse effects of discharges of urban wastewater, by the provision of urban wastewater collecting systems (sewerage) and treatment plants for urban centres. The Directive also provides general rules for the sustainable disposal of sludge arising from wastewater treatment.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
Sewage Sludge Directive (86/278/EEC)	Objective is to encourage the appropriate use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Integrated Pollution Prevention Control Directive (96/61/EC)	Objective is to achieve a high level of protection of the environment through measures to prevent or, where that is not practicable, to reduce emissions to air, water and land from industrial sources.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.

Directive	Purpose	Interactions resulting in Cumulative Impacts
National		
National Spatial Strategy 2002-2020	Objectives of the NSS are to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning.	<p>Potential in-combination impacts may arise, if unmitigated, where there is a requirement to provide for new infrastructure.</p> <p>Provision of infrastructure may result in:</p> <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Regional		
South Eastern River Basin Plan	This plan aims to achieve good water quality within the region by 2015 in keeping with the Water Framework Directive	No risk of likely significant in-combination effects will result as the primary purpose of the Plan is to improve water quality in the South-west region.
Regional Planning Guidelines for the South-East Region 2010 – 2022.	Policy document which aims to direct the future growth of the South-east Area over the medium to long term and works to implement the strategic planning framework set out in the National Spatial Strategy (NSS)	<p>Potential in-combination impacts may arise, if unmitigated, where there is a requirement to provide for new infrastructure.</p> <p>Provision of infrastructure may result in:</p> <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Local		
<p>Wexford County Development Plan 2013-2019</p> <p>Laois County Development Plan 2012-2018</p> <p>Carlow County Development Plan 2009-2015</p> <p>Carlow Town Development Plan 2012 – 2020</p> <p>Kilkenny County Development Plan 2014-2020</p> <p>Kilkenny City Development Plan</p>	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant Local Authorities.	<p>Development plans in existence throughout the surrounding counties acting alone or in combination can have a cumulative impact on European Sites located within County Carlow. In relation to the River Barrow and River Nore cSAC, potential for in-combination impacts exists due to the site extending into the surrounding counties of Laois (upstream), Kilkenny (downstream), and Kildare (upstream).</p> <p>Provision of infrastructure may result in:</p> <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation

Directive	Purpose	Interactions resulting in Cumulative Impacts
2014 - 2020 North Tipperary County Development Plan 2010 South Tipperary County Development Plan 2009		

2.5 Conclusion of Screening Stage

The likely impacts that could arise from the proposed Amendment No. 2 to the Callan LAP have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network of sites. On the basis of the findings of this Screening for AA, it is concluded that the Proposed Amendment:

- (i) is not directly connected with or necessary to the management of a European site; and
- (ii) may have significant impacts on the Natura 2000 network.

Therefore, applying the precautionary principle and in accordance with Article 6(3) of the Habitats Directive, a Stage 2 AA is required. That stage is set out in Section 3 of this report.

Section 3 Stage 2 Appropriate Assessment

3.1 Introduction

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

The Stage 1 Screening presented above has identified one site, the River Barrow and River Nore cSAC, with potential to be affected by Proposed Amendment No. 2 to the Callan LAP. Therefore, a Stage 2 Appropriate Assessment AA is required. The potential adverse effects considered at this stage will either be effects occurring as a result of the application of the Amendment to the Plan alone or in-combination with other plans, programmes and/or projects.

The qualifying features and the main threats to the site are listed in Table 1 above. Detailed information relevant to the site that has been reviewed to inform the appropriate assessment includes the following information available from the National Parks and Wildlife Service:

- NPWS Site Synopsis
- Natura 2000 Standard Data Form
- Detailed Conservation Objectives and supporting documents

A report of a recent ecological survey of the Proposed Amendment lands at Westcourt undertaken by Blackthorn Ecology (2014)³ was also considered.

The River Barrow and River Nore cSAC which may be adversely affected through the implementation of the proposed Amendment consists mostly of the freshwater stretches of the Barrow / Nore River catchments. The River Barrow flows southwards just west of the lands which are the subject of the Proposed Amendment. The designated area includes lands either side of the main river channel including some of the lands which are the subject to potential impacts from the proposed Amendment as shown in Figure 3 above.

The cSAC is designated for a wide range of both terrestrial and aquatic species and habitats as listed in Table 1. Following a review of the detailed site conservation objectives and associated supporting documents it is concluded that those listed habitats and species most likely to occur in proximity to the Plan Area include; Floating River Vegetation, White Clawed Crayfish (*Austropotamobius pallipes*), Salmon (*Salmo salar*), Otter (*Lutra lutra*), and River and Brook Lamprey (*Lampetra planeri*, *Lampetra fluviatilis*).

3.2 Potential Significant Effects

As outlined in the European Commission Environment DG document "Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC", impacts that could potentially occur through the implementation of the Proposed Amendment can be categorised under a number of headings:

- Loss / reduction of habitat area (e.g. due to the development of new projects)
- Disturbance to Key Species (e.g. increased public access to protected sites, or during the construction phase of infrastructure projects)
- Habitat or species fragmentation
- Reduction in species density

³ Westcourt House and Gardens Habitat and Green Infrastructure Survey. Blackthorn Ecology, 2014.

- Changes in key indicators of conservation value such as decrease in water quality / quantity (e.g. through inadequate wastewater treatment, run-off of pollutants during construction and operation of developments)

The proposed Amendment concerns the extension of the existing LAP boundary to include lands for residential development. By facilitating future development within these lands there is potential for the following significant effects on the cSAC. A summary of the potential significant effects on the cSAC associated with developments on these lands is presented below.

3.2.1 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 significant hydrological alteration of water dependant habitats.

Direct habitat loss is not foreseen due to the implementation of the proposed Amendment as the lands in question are located outside of the cSAC boundary. Furthermore, a habitat and green infrastructure survey of the lands in question has confirmed the absence of any Annex I habitats from within the boundary of the said lands (Blackthorn Ecology 2014)⁴ and evaluated the site as being of overall low ecological importance. However, the connectivity present between the site and the adjacent cSAC provided by hedgerows, treelines, and a freshwater stream is highlighted.

The Proposed Amendment provides for the development of a pedestrian link to Callan town centre from the lands at Westcourt. The route of this link has not been set out and therefore it remains a possibility that it could traverse areas within the cSAC. In the event of the route passing through the cSAC, then such a development could lead to loss of habitat from within the designated site boundary.

3.2.2 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 when construction introduces a barrier to the free movement of species from one area of habitat to another.

A recent habitats and green infrastructure survey⁵ within the lands in question identified that there are no sensitive habitats within the proposed Amendment area. The survey did however identify that the lands are linked to the River Barrow and River Nore cSAC by hedgerows and treelines. Fragmentation could may potentially occur as a result of the implementation of the Proposed Amendment if these ecological features are not safeguarded. Hedgerows are important ecological corridors for bat and bird species. Bats are protected under the Wildlife Acts of 1976 to 2010 and are listed on Annex IV of the EU Habitats Directive for strict protection. The value of these features could be enhanced if appropriate measures are taken to improve their quality as recommended by Blackthorn Ecology (2014).

3.2.3 Disturbance to Key Species

Disturbance to species supported by a European site is likely to increase where there is an increase in activity levels from recreation and amenity or from developments within or adjacent to sensitive designated areas. Sources of disturbance include noise, vibration, light, construction and operation

⁴ Westcourt House and Gardens Habitat and Green Infrastructure Survey. Blackthorn Ecology, 2014.

activities or other sources of disturbance arising from recreation and amenity or from the inappropriate timing of works.

The proposed Amendment works are located adjacent to the River Barrow and River Nore cSAC, Otter are one of the qualifying interests of the cSAC are likely to occur along the corridor of the Kings River and associated semi-natural habitat to the south of the Amendment Lands. Otter are vulnerable to disturbance resulting from increased human activity along with the disturbance effects of construction related activities.

3.2.4 Changes in Key Indicators of Conservation Value

The key indicators of conservation value for the River Barrow and River Nore cSAC are water quality and quantity. Impacts on the cSAC may occur where the development occurs adjacent to or within the land zoned for cSAC designation. The Amendment lands occur adjacent to the cSAC and are hydrologically linked to the cSAC via a stream and drainage features to the south.

Development within the site could result in alterations to the hydrological regime or physical environment of the site through drainage, and / or discharges to watercourses. Surface water from the lands subject to the proposed Amendment is likely to naturally discharge to the stream along the western and southern boundary of the site. This stream in turn discharges directly into the King's River which forms part of the River Barrow and River Barrow cSAC.

Aquatic species and habitats for which the cSAC is designated (and are likely to occur downstream of the Amendment Lands) that could be impacted by any significant deterioration in water quality include Floating River Vegetation, Otter (*Lutra lutra*), Atlantic salmon (*Salmo salar*), and White-clawed crayfish (*Austropotamobius pallipes*).

3.3 Conservation Objectives

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site. In the case of the River Barrow and River Nore cSAC, while a conservation management plan has not yet been prepared, detailed conservation objectives have been published (NPWS 2011)⁶.

These site-specific conservation objectives aim to define favourable conservation condition for the qualifying habitats and species at that site. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a species can be described as being achieved when: 'population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.'

Favourable conservation status of a habitat can be described as being achieved when: 'its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable'.

⁶ NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

<http://www.npws.ie/media/npwsie/content/images/protectedsites/conservationobjectives/CO002162.pdf>

The conservation objectives of each qualifying habitat and species for the River Barrow and River Nore cSAC are presented as a selection of attributes against which targets are set (NPWS 2011). All of these attributes in relation to each relevant feature have been considered in relation to the potential impacts associated with the Proposed Amendment outlined in Section 3.2 above.

Those species and habitats for which the cSAC is designated that are sensitive to potential impacts from the proposed Amendment, considering their known occurrence downstream (and proximate) to the lands in question include: Floating River Vegetation, River and Brook Lamprey (*Lampetra planeri*, *Lampetra fluviatilis*), Otter (*Lutra lutra*), Atlantic salmon (*Salmo salar*), White-clawed crayfish (*Austropotamobius pallipes*). The potential for non-achievement of the conservation objectives relating to these qualifying features are discussed further below.

White-clawed crayfish (*Austropotamobius pallipes*)

Known to occur downstream of the Amendment Lands. The target set by NPWS in relation to distribution is that there should be no reduction from the baseline. The target relating to the attribute 'water quality' is that the Q Value as measured by the EPA should be at least Q3-4 at all sites sampled.

In the absence of mitigation, there is a possibility that downstream water quality could deteriorate due to contaminated surface water run-off from the proposed Amendment lands and therefore could threaten the achievement of the conservation objective relating to White-clawed Crayfish.

Atlantic salmon (*Salmo salar*) (only in fresh water)

The target set by NPWS in relation to the attribute 'distribution' is that all rivers up to second order should be accessible from the estuary. The target relating to the attribute 'water quality' is that the Q Value as measured by the EPA should be at least Q4.

In the absence of mitigation, there is a risk that downstream water quality could deteriorate due to contaminated surface water run-off from the proposed Amendment lands and therefore could threaten the achievement of the conservation objective relating to Atlantic Salmon.

Otter (*Lutra lutra*)

The target set by NPWS in relation to the attribute 'distribution' is that there should be no significant decline and that it should be measured according to % of positive survey sites based on standard otter survey techniques. The target for the attribute 'extent of the terrestrial habitat' available to Otter should not suffer significant decline. This includes all habitats within 10m of the designated river-bank which is considered critical for Otter. Similarly in relation to the attribute 'Couching sites and holts' the target set is that there should be no significant decline.

In the absence of a defined route of the pedestrian link provided for by the proposed amendment there is a potential risk to Otter habitat and possible holt / couch sites within the cSAC and therefore this could contribute towards the conservation objective relating to otter not being achieved.

River and Brook Lamprey (*Lampetra planeri*, *Lampetra fluviatilis*)

Artificial barriers to the species that are present along watercourses present a major threat to their successful migration to up-stream spawning beds.

Based on the potential effects of the Proposed Amendment on the River Barrow and Nore cSAC, and taking into account the targets set for the various attributes for these species, it is considered extremely unlikely that the Proposed Amendment could impact on the conservation objective relating to River and Brook Lamprey.

Floating River Vegetation

The full distribution of this habitat within the cSAC remains unknown (NPWS 2011). However it is reported that there is an excellent example of the occurring vegetation community (nutrient-rich type) associated with extensive tufa deposits on the river bed in the Kings tributary of the Nore. The conservation objective includes the following attributes that may be relevant to the future use of the proposed Amendment lands:

- 'hydrological regime (river flow)', the target for which is that an appropriate regime be maintained
- 'water quality (suspended sediment & nutrients)', the targets for which is that concentrations in the water column should be sufficiently low to prevent changes in species composition or habitat condition

In the absence of mitigation, there is a risk that downstream water quality could deteriorate due to contaminated surface water run-off from the proposed Amendment lands and therefore could threaten the achievement of the conservation objective relating to Atlantic Salmon.

Section 4 Mitigation Measures

4.1 Introduction

Where it cannot be demonstrated that there will be no adverse effects from the implementation of the proposed Amendment to the Plan, mitigation measures have been devised. Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any adverse impacts on the environment of implementing the proposed Amendment. As outlined in Section 3.2 of this assessment a number of potential, if unmitigated, effects have been identified which could cause adverse impacts on the River Barrow and River Nore cSAC.

Measures are included in the policies and objectives of the existing Plan, including those transposed from the Kilkenny County Development Plan 2014 – 2020 that will ensure these impacts are mitigated, thereby safeguarding the conservation interest of European sites. Further measures aimed at further mitigating the potential effects identified above are recommended in Section 4.2 below.

4.2 Existing Policies and Objectives that offer Protection to European Sites

4.2.1 Callan Local Area Plan

Chapter 5 of the Callan Local Area Plan sets out the policies and controls relating to natural heritage in the Plan Area.

Natural Heritage / Biodiversity

NH1: In seeking to protect and enhance the natural environment, the Council will seek to;

- Protect natural heritage sites designated in National and European legislation, specifically the River Barrow and Rivers Nore SAC (See NH2);
- Designate an appropriate riverside buffer that protects the integrity of the SAC and assists in the management of flood risk;
- Protect and conserve non-designated habitats and species; and
- Protect and incorporate existing biodiversity features such as trees, hedgerows and surface water features into the design and construction of new development and public realm and enhancing the biodiversity value of existing open spaces.

Where development proposals are made along the riparian corridor, ensure that a condition of consent is to establish a vegetated strip along the river in consultation with the National Parks and Wildlife Service.

The River Barrow and River Nore cSAC

NH2: The King's River which forms part of the River Barrow and River Nore SAC has considerable potential for both waterside and landside to be used as a recreational asset for the town and the Local Area Plan will seek to promote the natural amenity potential of this site subject to:

- Protection of this site in accordance with National and European legislation ensuring that any development in or near the SAC will avoid any significant adverse impact on the features for which the site has been designated;
- Consultation with the prescribed bodies and relevant government agencies when assessing developments which are likely to impact on designated natural heritage sites or those sites proposed to be designated; and
- The requirement for an appropriate assessment in respect of any proposed development likely to have an impact on a designated natural heritage site, or those sites proposed to be designated.

4.2.2 Kilkenny County Development Plan

Chapter 8 of the Kilkenny County Development Plan sets out the policies and objectives relating to natural heritage in the county. The following objectives contained within the County Development Plan will mitigate against those potential effects identified in Section 3 above.

Chapter 1: Introduction

Section 1.3 - Appropriate Assessment

1A To implement the provisions of Articles 6(3) and 6(4) of the EU Habitats Directive.

1B 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.

Chapter 8: Heritage

Section 8.2.1.3 - Rare and Protected Species and their Habitats

8B 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.

8C 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).

Section 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.

Section 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.

Chapter 9: Infrastructure and Environment

Section 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 Recommendations

The following amendments to text of the draft amendment are proposed to safeguard the protection of the River Barrow and Nore cSAC by eliminating the risks to the conservation status of the site that have identified during the AA process.

4.3.1 Pedestrian Link

Depending on the route chosen, and the scale and characteristics of the development, the provision of a pedestrian link to the town centre could potentially result in adverse impacts on the River Barrow and Nore cSAC. The route of the pedestrian link should take account of potential effects on European sites and therefore it is recommended that the route of the link should not be specified in the plan.

The following amendment to an earlier version of the text was suggested and integrated into the Proposed Amendment by the Council:

To facilitate the development of a residential complex (10 units approx.) initiated by the Camphill Community with ancillary small scale socio-economic uses related to the activities of the charitable trust and to provide for a pedestrian link from the lands to the town centre ~~under the Callan by-pass (N76) via the Moat Field~~ subject to the following:

4.3.2 Potential effects on aquatic habitats and species within cSAC

As outlined above, development within the amendment lands, if unmitigated, could potentially lead to adverse impacts on aquatic species and habitats due to the proximity and hydrological connectivity of the area with the cSAC. Any such development will need to be subject to AA in its own right, and the potential for adverse impacts will depend on the scale and detailed design of any future proposal. The possible requirement for any appropriate site specific mitigation to avoid impacts on the cSAC can only be determined when such details are known. The following additional bullet points were integrated into the Proposed Amendment by the Council on foot of an AA recommendation in order to ensure that the risk posed by any future development of the lands is minimised:

- Any future development (including pedestrian link) of the lands will be subject to Appropriate Assessment in accordance with Article 6 of the Habitats Directive.
- Any developments proposed for the lands at Westcourt will be connected to the local public sewer (for treatment of waste water). Such developments will only proceed subject to the local treatment plant having capacity to adequately treat the additional load. It must be shown by proposals that all storm water can be appropriately collected, stored and treated so as not to affect the quality of water bodies.

Section 5 Conclusion

Stage 1 Screening and Stage 2 AA of proposed Amendment No. 2 to the Callan Local Area Plan 2009 - 2020 have been carried out. Stage I screening concluded that, if unmitigated, the proposed Amendment has the potential to result in impacts to the integrity of the Natura 2000 network of sites. A single European site, River Barrow and River Nore cSAC was screened in for Stage II AA.

The risks to safeguarding the integrity of the qualifying interests and conservation objectives of the Natura 2000 network are partly addressed by a number of existing policies and objectives contained within both the existing LAP and the overarching Kilkenny County Development Plan. A number of recommended changes to the text of the proposed Amendment are also made in order to further safeguard the protection of the River Barrow and River Nore cSAC. In addition, all lower level plans and projects arising through the implementation of the proposed Amendment to the LAP will themselves be subject to AA when further details of design and location are known.

In conclusion, having incorporated the above recommendations, it is considered that the Proposed Amendment to the Callan Local Area Plan 2009 – 2020 will not affect the integrity of the Natura 2000 network.