

NATURA IMPACT REPORT

IN SUPPORT OF THE
APPROPRIATE ASSESSMENT
OF THE
Galway County Development Plan 2015-2021

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

for: Galway County Council

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Section 1 Introduction

1.1 Background

This is the Natura Impact Report in support of the Appropriate Assessment of Galway County Development Plan 2015-2021 in accordance with the requirements of Article 6(3) of the EU Habitats Directive¹. This report is divided into these four sections:

Section 1	Introduction
Section 2	Stage 1 Screening
Section 3	Stage 2 Appropriate Assessment
Section 4	Mitigation Measures

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. 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 (Directive 2009/147/EC - codified version of Directive 79/409/EEC as amended), 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 (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (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.”

These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011. These new regulations consolidate the European

¹ Directive 92/43/EEC

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 the CJEU judgements.

1.3 Stages of Appropriate Assessment

This Appropriate Assessment 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 four 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.

Stage Three: Assessment of Alternative Solutions

The process which examines alternative ways of achieving the objectives of the project or plan that avoid 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 is found that the Plan only requires Stage 1 and Stage 2 assessment.

Section 2 Stage 1 Screening

2.1 Description of the Plan

2.1.1 The County Development Plan

The Galway County Development Plan 2015-2021 (CDP) sets out an overall strategy for the proper planning and sustainable development of the functional area of Galway County Council. The Plan presents Galway County Council's outlook for future development of the County up to the period 2021. It also takes account of the longer term vision for the manner in which the County can be developed, while protecting and enhancing its environment through employing the principles of sustainable development in the policies and objectives set out therein.

The Plan builds on the strategies, policies and objectives of the Galway CDP 2009-2015, taking into account recent key development trends and national, regional and local policy developments. In particular, it also takes account of the increased emphasis on flooding, climate change, renewable energy and the need to support economic development. It also takes account of EU requirements including the application of SEA and AA to the Plan.

The Plan has been prepared by Galway County Council and comprises of a written document with maps, and various appendices.

2.1.2 The Plan's Vision

The Vision of the Plan is as follows:

"Enhance the quality of life of the people of Galway and maintain the County as a uniquely attractive place in which to live, work, invest and visit, harnessing the potential of the county's competitive advantages in a sustainable and environmentally sensitive manner."

2.1.3 The Plan's Strategic Aims

The Strategic Aims of the Plan are detailed below.

Strategic Aim 1 – Promote Regional Development

Promote regional development and growth through harnessing the economic and employment potential of the competitive advantages of County Galway such as its strategic location, quality of life, landscape, heritage and natural resources, in a sustainable and environmentally sensitive manner.

Strategic Aim 2 – Environmental Protection

Afford suitable protection to the environment and natural resources of the County and ensure the fulfilment of environmental responsibilities.

Strategic Aim 3 – Living Landscapes

Recognise the importance of living landscapes where people live, work, visit and enjoy while ensuring they are managed in a sustainable and appropriate manner.

Strategic Aim 4 – Balanced Urban and Rural Areas

Prioritise development within the Hub town of Tuam, the Galway Metropolitan Area, Ballinasloe, the key towns and smaller towns, villages and settlements within the County, while supporting the role of the rural areas in sustaining the rural based economy.

Strategic Aim 5 – Inclusive Communities

Encourage and support the development of inclusive communities which engage and include all members of society facilitating equal physical, social and cultural access and integration.

Strategic Aim 6 – Integrated Development

Ensure a more sustainable and integrated concept of development with regard to land use, transportation, water services, energy supply and waste management over the lifetime of the Plan.

Strategic Aim 7 – Sustainable Transportation

Minimise travel demand and promote the increase of sustainable mobility throughout the county.

Strategic Aim 8 – An Ghaeltacht

Promote the Gaeltacht as an Irish speaking community, recognising its importance locally, nationally and internationally and endeavour to enhance, sustain and protect the remaining Irish speaking communities of the Gaeltacht, where possible.

Strategic Aim 9 – Infrastructural Projects

Facilitate the development of infrastructural projects, which will underpin sustainable development throughout the County and Region during the Plan period.

Strategic Aim 10 – Heritage

Enhance and protect the built heritage and natural environment, including buildings, archaeology, landscape and biodiversity, within the County.

Strategic Aim 11 – Climate Change Adaptation

Engage in efforts to limit the human induced causes of climate change and take account of climate change in planning and delivering work programmes. Engage in efforts to mitigate and adapt to climate change and integrate climate change considerations in planning and delivering work programmes.

2.1.4 Relationship with other relevant Plans and Programmes

The Plan sits within a hierarchy of land use forward planning strategic actions. The Plan must comply with relevant higher level strategic actions and may, in turn, guide lower level strategic actions. The following sections identify a number of these strategic actions, further details of which are contained in the Plan.

A full list of Plan informants are provided in Chapter 1 of the Plan.

2.1.4.1 The National Spatial Strategy 2002-2020

The National Spatial Strategy (NSS) is the national planning framework for Ireland which promotes self-sustaining growth through building up sufficient scale and critical mass through a network of Gateways and Hubs. The Gateways act at national level and the Hubs act at the regional level. The County levels are partnered by the county towns and other larger towns which support the role of smaller towns, villages and rural areas as a focus for business, residential, service and amenity functions.

2.1.4.2 Regional Planning Guidelines

Ireland is divided into eight regional forward planning regions, Dublin, Midlands, Mid East, Mid-West, South East, South West, West and Border, each with its own regional planning authority composed of Elected Members selected by the constituent local government councils. Regional planning authorities are required, under the Planning and Development (Regional Planning Guidelines) Regulations 2003 (SI No. 175 of 2003), to draw up regional planning guidelines (RPGs), long term strategic planning frameworks, for their relevant region.

The RPGs for the West Region 2010-2022 provide a framework for the long term strategic development of the West Region through setting out goals, policies and objectives in relation to population targets, housing, infrastructure, economic development, environment, amenities, social

infrastructure and community development, ensuring the successful implementation of the NSS at regional, county and local level.

2.1.4.3 Ballinasloe Town Development Plan

The Plan includes the administrative area of what was formerly Ballinasloe Town Council. On foot of a recent amendment to the Planning and Development Act 2000, the provisions and zonings of the Ballinasloe Development Plan (which has undergone SEA and AA) will remain in force to the extent provided for by that Development Plan or until an LAP is prepared for Ballinasloe, whichever is the earlier.

2.1.4.4 Other Lower Tier Plans

Local Area Plans (LAPs) have been or will be prepared for the towns/areas with a population over 1,500 persons; however, the County Development Plan remains the overarching Plan for the County. LAPs have been prepared for towns including Athenry, Bearna, Clifden, Craughwell, Gaeltacht, Gort, Loughrea, Maigh Cuilinn, Oranmore, Portumna and Tuam.

2.1.4.5 River Basin Management Plans

Local Authorities, including Galway County Council, have prepared the Shannon International and Western River Basin Management Plans which are implemented in order to help protect and improve waters in the county and wider River Basin Districts. These Plans and their associated Programmes of Measures include provisions to help ensure that water bodies in the districts meet the objectives of the Water Framework Directive.

2.1.4.6 National Catchment Flood Risk Assessment and Management Programmes

The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive. The Programme is being implemented through CFRAM Studies which are being undertaken for each of the six river basin districts in Ireland. CFRAM Studies are being undertaken for the Western and Shannon International River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. The final output from the studies will be CFRAM Plans, to be published in December 2016. The Plans will define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.

2.1.4.7 Draft National Forestry Programme 2014-2020

The Draft National Forestry Programme 2014-2020, *Forests, Products and People. Ireland's Forest Policy - A Renewed Vision*, is currently being prepared by the Department of Agriculture, Food and the Marine and views of stakeholders are now being sought on the composition of the new proposed forestry measures. These proposed measures represent a continuation of the previous Forestry Programme 2007-2013 which has been effective in supporting the growth and development of the forestry sector and rural economies.

2.1.4.8 Draft National Peatlands Strategy

The Draft National Peatlands Strategy, prepared by the National Parks and Wildlife Service, will, when finalised, establish principles in relation to Irish peatlands in order to guide Government policy. The Draft Strategy aims to provide a framework for which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution.

2.1.4.9 National Strategic Aquaculture Plan

Bord Iascaigh Mhara (BIM) is assisting the Department of Agriculture, Fisheries and the Marine in preparing a National Strategic Aquaculture Plan. The Plan is being prepared in compliance with Strategic EU Guidelines for the Sustainable Development of EU Aquaculture and will be consistent with the aim of the proposal for the Common Fisheries Policy reform to promote aquaculture through

“an open method of co-ordination”. The NSPA will compliment the National Seafood Operational Programme and will cover the period 2014-2020 (with mid-term assessment in 2017).

2.1.4.10 New Waste Management Plans

In accordance with Section 22 of the Waste Management Act, 1996 and the Waste Management (Planning) Regulations, 1997, notice was given of the intention to commence the preparation of new Regional Waste Management Plans in 2013. There will be three new Plans prepared for the following new waste management planning regions:

- Connacht-Ulster (comprising local authorities Cavan, Donegal, Galway City, Galway County, Leitrim, Mayo, Monaghan, Roscommon and Sligo);
- Eastern-Midland (comprising local authorities: Dublin City, Dun Laoghaire/Rathdown, Fingal, Kildare, Laois, Longford, Louth, Meath, Offaly, South Dublin, Wicklow and Westmeath); and
- Southern (comprising local authorities: Carlow, Clare, Cork City, Cork County, Kerry, Kilkenny, Limerick, Tipperary, Waterford and Wexford)

2.1.4.11 Smarter Travel 2009

“Smarter Travel, A Sustainable Transport Future, A New Transport Policy for Ireland 2009 - 2020” is the Government’s action plan to free towns and cities from traffic congestion, substantially cut CO2 emissions, encourage car based commuters to leave their cars at home, and encourage a shift toward walking, cycling and greater public transport usage.

2.1.4.12 GRID 25 and associated Implementation Plan

Grid25 is a high-level strategy outlining how EirGrid intends to undertake the development of the electricity transmission grid in the short, medium and longer terms, to support a long-term sustainable and reliable electricity supply. The Grid25 strategy thereby seeks to implement the provisions of the 2007 Government White Paper on Energy - “Delivering a Sustainable Energy Future for Ireland” in terms of development of electricity transmission infrastructure. The Grid25 Implementation Programme (IP) is a practical strategic overview of how the early stages of Grid25 are intended to be implemented.

2.1.4.13 Food Harvest 2020

Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas in 2015.

2.1.4.14 Environmental Protection Objectives

The Plan is subject to a number of high level environmental protection policies and objectives with which it must comply, including those which have been identified as Strategic Environmental Objectives in Section 5 of the Environmental Report on the County Development Plan 2015-2021.

Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status by 2015.

2.2 European Sites in and within 15 km of the Plan Area

2.2.1 cSACs and SPAs

This section of the screening process describes the European Sites within a 15km zone of impact of the plan area. A distance of 15km is currently recommended in the DoE document *Appropriate Assessment of Plans and Projects - Guidance for Planning Authorities* 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 is given in Figure 2.1.

Tables 2.1 to 2.4 list the European Sites and their respective qualifying features that are:

- a) within County Galway (Table 2.1 & Table 2.2) and
- b) within 15 km of the county boundary (Table 2.3 & Table-2.4).

In order to determine the potential for impacts from the Plan, information on the qualifying features, known vulnerabilities and threats to Site integrity pertaining to all potentially affected European Sites was reviewed. Background information on threats to individual Sites and vulnerability of habitats and species that was used during this assessment is summarised in Appendix I of this report. This information was derived from a variety of sources, including:

- 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

As the conservation management objectives for the Natura Sites focus on maintaining the favourable conservation status of the qualifying features of each Site, the Screening process also concentrated on assessing the potential implications of the County Development Plan against the qualifying features of each Site.

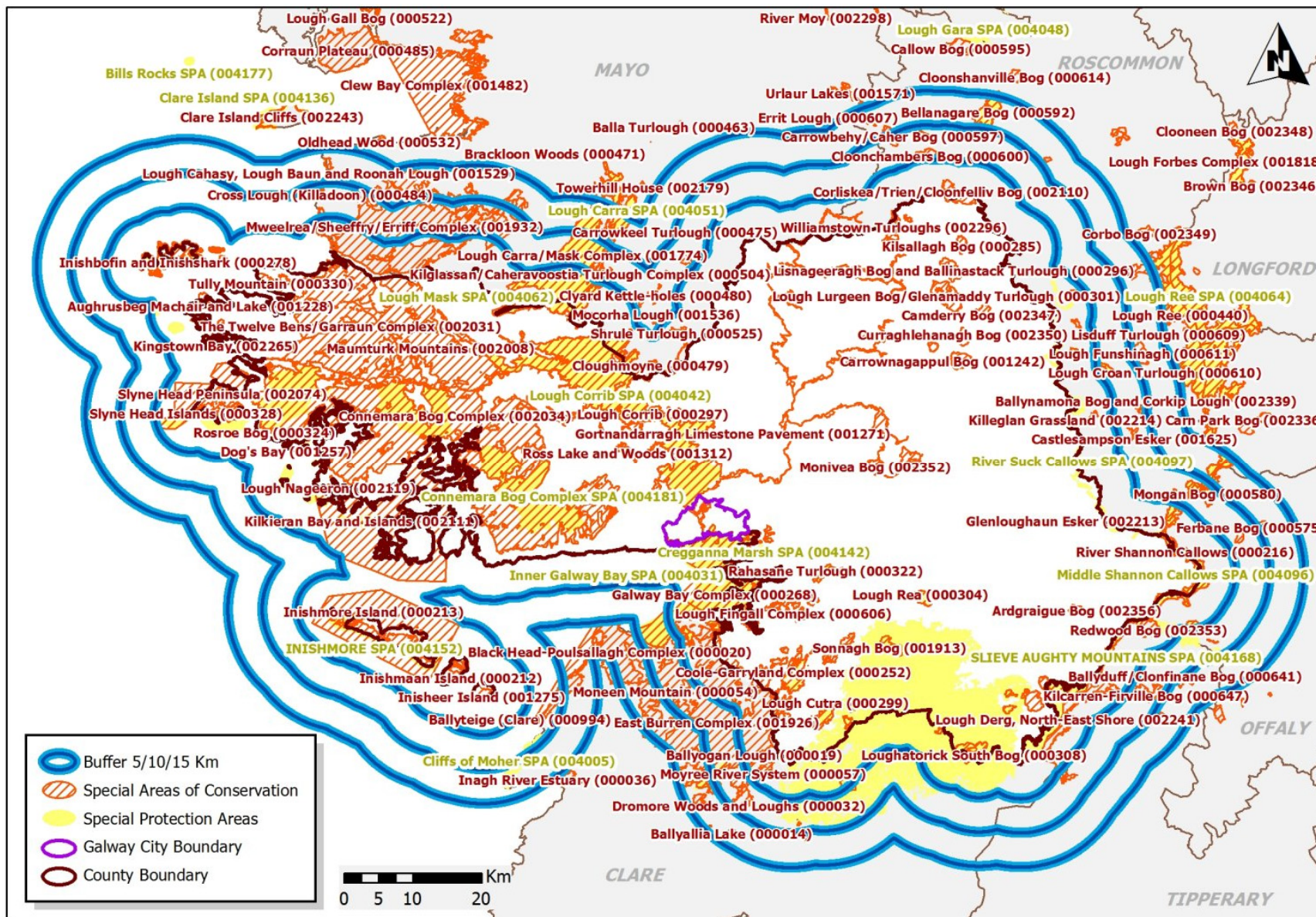


Figure 2.1 European Sites within County Galway and 15km of the County Boundary (November 2013)

Table 2.1 cSACs in County Galway and their Qualifying Features

These Sites are listed according to their NPWS codes (see Figure 2.1 for locations of these cSACs).

Site Name (Site Code)	Qualifying Features
000212 - Inishmaan Island cSAC	Perennial vegetation of stony banks, Reefs, Vegetated sea cliffs of the Atlantic and Baltic coasts, Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Limestone pavements, European dry heaths, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Fixed coastal dunes with herbaceous vegetation (grey dunes), Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Dunes with <i>Salix repens ssp.argentea</i> (<i>Salix arenariae</i>), Humid dune slacks, Machairs (in Ireland), Perennial vegetation of stony banks, Reefs, Vegetated sea cliffs of the Atlantic and Baltic coasts, Alpine and Boreal heaths, Submerged or partly submerged sea caves, Coastal lagoons
000213 - Inishmore Island cSAC	Coastal lagoons, Reefs, Perennial vegetation of stony banks, Vegetated sea cliffs of the Atlantic and Baltic coasts, Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Fixed coastal dunes with herbaceous vegetation (grey dunes), Dunes with <i>Salix repens ssp.argentea</i> (<i>Salix arenariae</i>), Humid dune slacks, Machairs, European dry heaths, Alpine and Boreal heaths, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid Sites), Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Limestone pavements, Submerged or partly submerged sea caves <i>Vertigo angustior</i>
000216 - River Shannon Callows cSAC	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>), Limestone pavements <i>Lutra lutra</i>
000218 - Coolcam Turlough cSAC	Turloughs
000231 - Barroughter Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000238 - Caherglassaun Turlough cSAC	Turloughs, <i>Rhinolophus hipposideros</i>
000242 - Castletaylor Complex cSAC	Turloughs, Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Limestone pavements
000248 - Cloonmoylan Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i> , Bog woodland
000252 - Coole-Garryland Complex cSAC	Limestone pavements, Turloughs, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation

Site Name (Site Code)	Qualifying Features
000255 - Croaghill Turlough cSAC	Turloughs
000261 - Derrycrag Wood Nature Reserve cSAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
000268 - Galway Bay Complex cSAC	Coastal lagoons, Large shallow inlets and bays, Reefs, Perennial vegetation of stony banks, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), <i>Salicornia</i> and other annuals colonizing mud and sand, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> , Turloughs, Mudflats and sandflats not covered by seawater at low tide, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Alkaline fens, <i>Juniperus communis</i> formations on heaths or calcareous grasslands <i>Phoca vitulina</i> <i>Lutra lutra</i>
000278 - Inishbofin and Inishshark cSAC	Coastal lagoons, Northern Atlantic wet heaths with <i>Erica tetralix</i> , European dry heaths, Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) <i>Halichoerus grypus</i>
000285 - Kilsallagh Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000286 - Kiltartan Cave (Coole) cSAC	Caves not open to the public <i>Rhinolophus hipposideros</i>
000295 - Levally Lough cSAC	Turloughs
000296 - Lisnageeragh Bog and Ballinastack Turlough cSAC	Turloughs, Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000297 - Lough Corrib cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp., Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Active raised bogs, Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles, <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>), Alkaline fens, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> , Limestone pavements, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Bog woodland, Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation, Petrifying springs with tufa formation (<i>Cratoneurion</i>), Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i> <i>Petromyzon marinus</i> , <i>Salmo salar</i> , <i>Lampetra planeri</i> , <i>Rhinolophus hipposideros</i> , <i>Lutra lutra</i> , <i>Austropotamobius pallipes</i> , <i>Margaritifera margaritifera</i> , <i>Najas flexilis</i> , <i>Drepanocladus vernicosus</i>
000299 - Lough Cutra cSAC	<i>Rhinolophus hipposideros</i>
000301 - Lough Lurgeen Bog/Glenamaddy Turlough cSAC	Active raised bogs, Turloughs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000304 - Lough Rea cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.
000308 - Loughatorick South Bog cSAC	Blanket bog (active only)
000318 - Peterswell Turlough cSAC	Turloughs
000319 - Pollnaknockaun Wood Nature Reserve cSAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles

Site Name (Site Code)	Qualifying Features
000322 - Rahasane Turlough cSAC	Turloughs
000324 - Rosroe Bog cSAC	Blanket bog (active only), Depressions on peat substrates of the <i>Rhynchosporion</i>
000326 - Shankill West Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000328 - Slyne Head Islands cSAC	Reefs, <i>Halichoerus grypus</i>
000330 - Tully Mountain cSAC	European dry heaths, Alpine and Boreal heaths, Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Blanket bog (active only)
000474 - Ballymaglancy Cave, Cong cSAC	Caves not open to the public, <i>Rhinolophus hipposideros</i>
000606 - Lough Fingall Complex cSAC	Turloughs, Limestone pavements, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> , <i>Rhinolophus hipposideros</i>
001228 - Aughrusbeg Machair and Lake cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Northern Atlantic wet heaths with <i>Erica tetralix</i>
001242 - Carrownagappul Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
001251 - Cregduff Lough cSAC	Transition mires and quaking bogs, <i>Najas flexilis</i>
001257 - Dog's Bay cSAC	Annual vegetation of drift lines, Embryonic shifting dunes, Fixed coastal dunes with herbaceous vegetation (grey dunes), European dry heaths, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)
001271 - Gortnandarragh Limestone Pavement cSAC	Limestone pavements
001275 - Inisheer Island cSAC	Limestone pavements, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), European dry heaths, Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Reefs, Coastal lagoons
001285 - Kiltiernan Turlough cSAC	Turloughs
001309 - Omev Island Machair cSAC	Machairs (in Ireland), Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp, <i>Petalophyllum ralfsii</i>
001311 - Rusheenduff Lough cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), <i>Najas flexilis</i>
001312 - Ross Lake and Woods cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp., Alkaline fens, Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>), <i>Rhinolophus hipposideros</i> , <i>Lutra lutra</i>
001313 - Rosturra Wood cSAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
001321 - Termon Lough cSAC	Turloughs

Site Name (Site Code)	Qualifying Features
001774 - Lough Carra/Mask Complex cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp., Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Limestone pavements, European dry heaths, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> , Alkaline fens, Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>), Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites) <i>Rhinolophus hipposideros</i> , <i>Lutra lutra</i> , <i>Drepanocladus vernicosus</i>
001913 - Sonnagh Bog cSAC	Blanket bog (active only)
001926 - East Burren Complex cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp., Turloughs, Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation, Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> , Petrifying springs with tufa formation (<i>Cratoneurion</i>), Alkaline fens, Limestone pavements, Caves not open to the public, Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) <i>Rhinolophus hipposideros</i> , <i>Lutra lutra</i> , <i>Euphydryas aurinia</i>
002008 - Maumturk Mountains cSAC	Alpine and Boreal heaths, Siliceous rocky slopes with chasmophytic vegetation, Blanket bog (active only), Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Northern Atlantic wet heaths with <i>Erica tetralix</i> , Depressions on peat substrates of the <i>Rhynchosporion</i> <i>Salmo salar</i> , <i>Najas flexilis</i>
002031 - The Twelve Bens/Garraun Complex cSAC	Blanket bog (active only), Siliceous rocky slopes with chasmophytic vegetation, Calcareous rocky slopes with chasmophytic vegetation, Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>), Alpine and Boreal heaths Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles, Depressions on peat substrates of the <i>Rhynchosporion</i> <i>Salmo salar</i> , <i>Lutra lutra</i> , <i>Margaritifera margaritifera</i> , <i>Najas flexilis</i>
002034 - Connemara Bog Complex cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Natural dystrophic lakes and ponds, Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation, Northern Atlantic wet heaths with <i>Erica tetralix</i> , European dry heaths, Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) Blanket bog (active only), Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles, Alkaline fens, Coastal lagoons, Transition mires and quaking bogs, Depressions on peat substrates of the <i>Rhynchosporion</i> , Reefs <i>Salmo salar</i> , <i>Lutra lutra</i> , <i>Euphydryas aurinia</i> , <i>Najas flexilis</i>

Site Name (Site Code)	Qualifying Features
002074 - Slyne Head Peninsula cSAC	Coastal lagoons, Annual vegetation of drift lines, Perennial vegetation of stony banks, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Machairs (in Ireland), Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Large shallow inlets and bays Reefs, Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp., European dry heaths, Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>), Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Alkaline fens <i>Petalophyllum ralfsii</i> , <i>Najas flexilis</i>
002110 - Corliskea/Trien/Cloonfelliv Bog cSAC	Bog woodland, Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the Rhynchosporion
002111 - Kilkieran Bay and Islands cSAC	Mudflats and sandflats not covered by seawater at low tide, Large shallow inlets and bays, Coastal lagoons, Reefs, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), Machairs (in Ireland), Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) <i>Lutra lutra</i> , <i>Phoca vitulina</i> , <i>Najas flexilis</i>
002117 - Lough Coy cSAC	Turloughs <i>Najas flexilis</i>
002118 - Barnahallia Lough cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Blanket bog (active only)
002119 - Lough Nageeron cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) <i>Najas flexilis</i>
002129 - Murvey Machair cSAC	Machairs (in Ireland), <i>Petalophyllum ralfsii</i>
002130 - Tully Lough cSAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) <i>Najas flexilis</i>
002180 - Gortacarnaun Wood cSAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
002181 - Drummin Wood cSAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
002213 - Glenloughaun Esker cSAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites)
002241 - Lough Derg, North-East Shore cSAC	<i>Taxus baccata</i> woods of the British Isles, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Alkaline fens, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> , Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>), Limestone pavements
002244 - Ardrahan Grassland cSAC	Alpine and Boreal heaths, Limestone pavements, <i>Juniperus communis</i> formations on heaths or calcareous grasslands
002265 - Kingstown Bay cSAC	Large shallow inlets and bays
002293 - Carrowbaun, Newhall and Ballylee Turloughs cSAC	Turloughs

Site Name (Site Code)	Qualifying Features
002294 - Cahermore Turlough cSAC	Turloughs
002295 - Ballinduff Turlough cSAC	Turloughs
002296 - Williamstown Turloughs cSAC	Turloughs
002317 - Cregg House Stables, Crusheen cSAC	<i>Rhinolophus hipposideros</i>
002347 - Camderry Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
002350 - Curraghlehanagh Bog cSAC	Degraded raised bogs still capable of natural regeneration, Active raised bogs, Depressions on peat substrates of the <i>Rhynchosporion</i>
002352 - Monivea Bog cSAC	Degraded raised bogs still capable of natural regeneration, Active raised bogs, Depressions on peat substrates of the <i>Rhynchosporion</i>
002356 - Ardgraique Bog cSAC	Degraded raised bogs still capable of natural regeneration, Active raised bogs, Depressions on peat substrates of the <i>Rhynchosporion</i>

Table 2.2 SPAs in County Galway and their Qualifying Features

These sSites are listed according to their NPWS codes (see Figure 2.1 for locations of these SPAs)

Site Name and code	Qualifying Features
004031 - Inner Galway Bay SPA	Great Northern Diver (<i>Gavia immer</i>), Cormorant (<i>Phalacrocorax carbo</i>), Grey Heron (<i>Ardea cinerea</i>) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>), Wigeon (<i>Anas penelope</i>), Teal (<i>Anas crecca</i>), Shoveler (<i>Anas clypeata</i>), Red-breasted Merganser (<i>Mergus serrator</i>), Ringed Plover (<i>Charadrius hiaticula</i>), Golden Plover (<i>Pluvialis apricaria</i>), Lapwing (<i>Vanellus vanellus</i>), Dunlin (<i>Calidris alpina</i>) Bar-tailed Godwit (<i>Limosa lapponica</i>), Curlew (<i>Numenius arquata</i>), Redshank (<i>Tringa totanus</i>) Turnstone (<i>Arenaria interpres</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Common Gull (<i>Larus canus</i>), Sandwich Tern (<i>Sterna sandvicensis</i>), Common Tern (<i>Sterna hirundo</i>) Wetlands & Waterbirds
004042 - Lough Corrib SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Gadwall (<i>Anas strepera</i>), Shoveler (<i>Anas clypeata</i>), Pochard (<i>Aythya ferina</i>), Tufted Duck (<i>Aythya fuligula</i>), Common Scoter (<i>Melanitta nigra</i>), Hen Harrier (<i>Circus cyaneus</i>), Coot (<i>Fulica atra</i>), Golden Plover (<i>Pluvialis apricaria</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Common Gull (<i>Larus canus</i>), Common Tern (<i>Sterna hirundo</i>), Arctic Tern (<i>Sterna paradisaea</i>), Wetlands
004056 - Lough Cutra SPA	Cormorant (<i>Phalacrocorax carbo</i>)
004058 - Lough Derg (Shannon) SPA	Tufted Duck (<i>Aythya fuligula</i>), Goldeneye (<i>Bucephala clangula</i>), Cormorant (<i>Phalacrocorax carbo</i>) Common Tern (<i>Sterna hirundo</i>), Wetlands and Waterbirds
004062 - Lough Mask SPA	Tufted Duck (<i>Aythya fuligula</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Common Gull (<i>Larus canus</i>), Lesser Black-backed Gull (<i>Larus fuscus</i>), Common Tern (<i>Sterna hirundo</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds

Site Name and code	Qualifying Features
004089 - Rahasane Turlough SPA	Whooper Swan (<i>Cygnus cygnus</i>), Wigeon (<i>Anas penelope</i>), Golden Plover (<i>Pluvialis apricaria</i>), Black-tailed Godwit (<i>Limosa limosa</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds
004096 - Middle Shannon Callows SPA	Whooper Swan (<i>Cygnus cygnus</i>), Wigeon (<i>Anas penelope</i>), Corncrake (<i>Crex crex</i>), Golden Plover (<i>Pluvialis apricaria</i>), Lapwing (<i>Vanellus vanellus</i>), Black-tailed Godwit (<i>Limosa limosa</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Wetlands & Waterbirds
004097 - River Suck Callows SPA	Whooper Swan (<i>Cygnus cygnus</i>), Wigeon (<i>Anas penelope</i>), Golden Plover (<i>Pluvialis apricaria</i>), Lapwing (<i>Vanellus vanellus</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds
004107 - Coole-Garryland SPA	Whooper Swan (<i>Cygnus cygnus</i>)
004134 - Lough Rea SPA	Shoveler (<i>Anas clypeata</i>), Coot (<i>Fulica atra</i>), Wetland & Waterbirds
004142 - Cregganna Marsh SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)
004144 - High Island, Inishshark and Davillaun SPA	Fulmar (<i>Fulmarus glacialis</i>), Arctic Tern (<i>Sterna paradisaea</i>), Barnacle Goose (<i>Branta leucopsis</i>)
004152 - Inishmore SPA	Kittiwake (<i>Rissa tridactyla</i>), Arctic Tern (<i>Sterna paradisaea</i>), Little Tern (<i>Sterna albifrons</i>), Guillemot (<i>Uria aalge</i>)
004159 - Slyne Head to Ardmore Point Islands SPA	Barnacle Goose (<i>Branta leucopsis</i>), Sandwich Tern (<i>Sterna sandvicensis</i>), Arctic Tern (<i>Sterna paradisaea</i>), Little Tern (<i>Sterna albifrons</i>)
004168 - Slieve Aughty Mountains SPA	Hen Harrier (<i>Circus cyaneus</i>), Merlin (<i>Falco columbarius</i>)
004170 - Cruagh Island SPA	Manx Shearwater (<i>Puffinus puffinus</i>), Barnacle Goose (<i>Branta leucopsis</i>)
004181 - Connemara Bog Complex SPA	Cormorant (<i>Phalacrocorax carbo</i>), Merlin (<i>Falco columbarius</i>), Golden Plover (<i>Pluvialis apricaria</i>), Common Gull (<i>Larus canus</i>)
004221 - Illaunnanoon SPA	Sandwich Tern (<i>Sterna sandvicensis</i>)
004231 - Inishbofin, Omey Island and Turbot Island SPA	Corncrake (<i>Crex crex</i>)

Table 2.3 cSACs within 15km of the Boundary of County Galway and their Qualifying Features

These Sites are listed according to their NPWS codes (see Figure 2.1 for locations of these cSACs). Sites that straddle the County border are included in Table 2.1 above.

Site Name (Site Code)	Qualifying Features
000014 - Ballyallia Lake cSAC	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation
000016 - Ballycullinan Lake cSAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
000019 - Ballyogan Lough cSAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>

Site Name (Site Code)	Qualifying Features
000020 - Black Head-Poulsallagh Complex cSAC	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation, Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites) Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>), Petrifying springs with tufa formation (<i>Cratoneurion</i>) Reefs, Limestone pavements, Submerged or partly submerged sea caves, Perennial vegetation of stony banks <i>Petalophyllum ralfsii</i>
000032 - Dromore Woods And Loughs cSAC	Limestone pavements, Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels <i>Rhinolophus hipposideros</i> , <i>Lutra lutra</i>
000054 - Moneen Mountain cSAC	Limestone pavements, Petrifying springs with tufa formation (<i>Cratoneurion</i>), Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Calaminarian grasslands of the <i>Violetalia calaminariae</i> , Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Turloughs <i>Rhinolophus hipposideros</i> , <i>Euphydryas aurinia</i>
000057 - Moyree River System cSAC	Limestone pavements, Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation Alkaline fens, Caves not open to the public, <i>Rhinolophus hipposideros</i> <i>Euphydryas aurinia</i> .
000461 - Ardkill Turlough cSAC	Turloughs
000475 - Carrowkeel Turlough cSAC	Turloughs
000479 - Cloughmoyne cSAC	Limestone pavements
000480 - Clyard Kettle-Holes cSAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> , Turloughs
000484 - Cross Lough (Killadoon) cSAC	Perennial vegetation of stony banks, Coastal lagoons, Machairs (in Ireland), Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)
000503 - Greaghans Turlough cSAC	Turloughs
000504 - Kilglassan/Caheravoostia Turlough Complex cSAC	Turloughs
000525 - Shrule Turlough cSAC	Turloughs
000541 - Skealaghan Turlough cSAC	Turloughs
000566 - All Saints Bog And Esker cSAC	Bog woodland, Active raised bogs, Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco rometalia</i>)(important orchid Sites), Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000575 - Ferbane Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000576 - Fin Lough cSAC (Offaly)	Alkaline fens, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Degraded raised bogs still capable of natural regeneration <i>Vertigo geyeri</i>

Site Name (Site Code)	Qualifying Features
000580 - Mongan Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000581 - Moyclare Bog cSAC	Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000588 - Ballinturly Turlough cSAC	Turloughs
000592 - Bellanagare Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion Euphydrias aurinia</i>
000597 - Carrowbehy/Caher Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion Euphydrias aurinia</i>
000600 - Cloonchambers Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion Euphydrias aurinia</i>
000607 - Errit Lough cSAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.
000609 - Lisduff Turlough cSAC	Turloughs
000610 - Lough Croan Turlough cSAC	Turloughs
000611 - Lough Funshinagh cSAC	Turloughs
000612 - Mullygollan Turlough cSAC	Turloughs
000641 - Ballyduff/Clonfinane Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i> , Bog woodland
000647 - Kilcarren-Firville Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
000919 - Ridge Road, Sw Of Rapemills cSAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites)
000996 - Ballyvaughan Turlough cSAC	Turloughs
001529 - Lough Cahasy, Lough Baun And Roonah Lough cSAC	Coastal lagoons, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Perennial vegetation of stony banks
001536 - Mocarha Lough cSAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
001625 - Castlesampson Esker cSAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites), Turloughs
001637 - Four Roads Turlough cSAC	Turloughs
001683 - Liskeen Fen cSAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
001776 - Pilgrim's Road Esker cSAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites)
001912 - Glendree Bog cSAC	Blanket bog (active only)

Site Name (Site Code)	Qualifying Features
001932 - Mweelrea/Sheeffry/Erriff Complex cSAC	Coastal lagoons, Annual vegetation of drift lines, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>), Embryonic shifting dunes, Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) Dunes with <i>Salix repens ssp. argentea</i> (<i>Salix arenariae</i>), Machairs (in Ireland), Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>), Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the Isoëto-Nanojuncetea, Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitricho-Batrachion vegetation, Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths, Alpine and Boreal heaths, <i>Juniperus communis</i> formations on heaths or calcareous grasslands, Blanket bog (active only), Transition mires and quaking bogs, Alkaline fens Petrifying springs with tufa formation (<i>Cratoneurion</i>), Siliceous rocky slopes with chasmophytic vegetation, Calcareous rocky slopes with chasmophytic vegetation, Mediterranean salt meadows (<i>Juncetalia maritim</i>), Natural dystrophic lakes and ponds, Depressions on peat substrates of the <i>Rhynchosporion</i> <i>Salmo salar</i> , <i>Lutra lutra</i> , <i>Margaritifera margaritifera</i> , <i>Vertigo geyeri</i> , <i>Vertigo angustior</i> , <i>Petalophyllum ralfsii</i> , <i>Najas flexilis</i>
002126 - Pollagoona Bog cSAC	Blanket bog (active only)
002157 - Newgrove House cSAC	<i>Rhinolophus hipposideros</i>
002165 - Lower River Shannon cSAC	Estuaries, Mudflats and sandflats not covered by seawater at low tide, Coastal lagoons, Vegetated sea cliffs of the Atlantic and Baltic coasts, Salicornia and other annuals colonizing mud and sand, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitricho-Batrachion vegetation, Sandbanks which are slightly covered by sea water all the time, Large shallow inlets and bays, Reefs, Perennial vegetation of stony banks, <i>Spartina</i> swards (<i>Spartinion maritimae</i>), Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) <i>Lampetra fluviatilis</i> , <i>Lampetra planeri</i> , <i>Petromyzon marinus</i> , <i>Salmo salar</i> , <i>Tursiops truncates</i> , <i>Lutra lutra</i> , <i>Margaritifera margaritifera</i>
002214 - Killeglan Grassland cSAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(important orchid Sites)
002245 - Old Farm Buildings, Ballymacrogan cSAC	<i>Rhinolophus hipposideros</i>
002246 - Ballycullinan, Old Domestic Building cSAC	<i>Rhinolophus hipposideros</i>
002298 - River Moy cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i> , Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles, Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) <i>Salmo salar</i> , <i>Petromyzon marinus</i> , <i>Lampetra planeri</i> , <i>Lutra lutra</i> , <i>Austropotamobius pallipes</i>
002312 - Slieve Bernagh Bog cSAC	Blanket bog (active only), Northern Atlantic wet heaths with <i>Erica tetralix</i> , European dry heaths

Site Name (Site Code)	Qualifying Features
002314 - Old Domestic Buildings, Rylane cSAC	<i>Rhinolophus hipposideros</i>
002320 - Kildun Souterrain cSAC	<i>Rhinolophus hipposideros</i>
002338 - Drumalough Bog cSAC	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat substrates of the <i>Rhynchosporion</i>
002339 - Ballynamona Bog And Corkip Lough cSAC	Turloughs, Degraded raised bogs still capable of natural regeneration, Bog woodland, Active raised bogs, Depressions on peat substrates of the <i>Rhynchosporion</i>
002353 - Redwood Bog cSAC	Degraded raised bogs still capable of natural regeneration, Active raised bogs, Depressions on peat substrates of the <i>Rhynchosporion</i>

Table-2.4 SPAs within 15km of the Boundary of County Galway and their Qualifying Features

These Sites are listed according to their NPWS codes (see Figure 2.1 for locations of these SPAs).

Sites that straddle the County border are included in Table 2.1 above.

Site Name and Code	Conservation Features
004105 Bellanagare Bog SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)
004139 Lough Croan Turlough SPA	Shoveler (<i>Anas clypeata</i>), Golden Plover (<i>Pluvialis apricaria</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds
004140 Four Roads Turlough SPA	Golden Plover (<i>Pluvialis apricaria</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds
004005 Cliffs of Moher SPA	Fulmar (<i>Fulmarus glacialis</i>), Kittiwake (<i>Rissa tridactyla</i>), Guillemot (<i>Uria aalge</i>), Razorbill (<i>Alca torda</i>), Puffin (<i>Fratercula arctica</i>), Chough (<i>Pyrrhocorax pyrrhocorax</i>)
004041 Ballyallia Lough SPA	Wigeon (<i>Anas penelope</i>), Gadwall (<i>Anas strepera</i>), Teal (<i>Anas crecca</i>), Mallard (<i>Anas platyrhynchos</i>), Shoveler (<i>Anas clypeata</i>), Coot (<i>Fulica atra</i>), Black-tailed Godwit (<i>Limosa limosa</i>), Wetlands & Waterbirds
004086 River Little Brosna Callows SPA	Whooper Swan (<i>Cygnus cygnus</i>), Wigeon (<i>Anas penelope</i>), Teal (<i>Anas crecca</i>), Pintail (<i>Anas acuta</i>), Shoveler (<i>Anas clypeata</i>), Golden Plover (<i>Pluvialis apricaria</i>), Lapwing (<i>Vanellus vanellus</i>), Black-tailed Godwit (<i>Limosa limosa</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Wetlands & Waterbirds
004017 Mongan Bog SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)
004103 All Saints Bog SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)
004137 Dovegrove Callows SPA	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)
004212 Cross Lough (Killadoon) SPA	Sandwich Tern (<i>Sterna sandvicensis</i>)
004220 Corofin Wetlands SPA	Little Grebe (<i>Tachybaptus ruficollis</i>), Whooper Swan (<i>Cygnus cygnus</i>), Wigeon (<i>Anas penelope</i>), Teal (<i>Anas crecca</i>), Black-tailed Godwit (<i>Limosa limosa</i>), Wetlands & Waterbirds
004051 Lough Carra SPA	Common Gull (<i>Larus canus</i>)

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 Natura Impact Report for Galway County Development Plan 2015-2021 includes measures that will benefit the protection of European Designated Sites however its primary purpose is not the nature conservation management of the Sites, but to provide for development. Therefore, the CDP 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 Plan with Potential to Give Rise to Significant Effects

2.3.2.1 Galway County Development Plan

This screening assessment process identifies whether the changes brought about by the Plan are likely to cause any direct, indirect or secondary impacts (either alone or in combination with other plans or projects) on the Natura 2000 network of Sites. During this assessment a number of factors were taken into account including the Sites' conservation objectives and known threats. The overall aim of the assessment is to attempt to predict the consequences that can be *reasonably* foreseen by implementation of a policy or objective.

It should be noted that the objectives and policies that make up the Plan are highly strategic in nature and therefore the impact assessment can at best be generalised.

In general, any development that may result from implementation of the Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity, provision of tourism facilities and telecommunications infrastructure could lead to significant effects depending on where development is sited, the scale and characteristics of development and types and quantities of emissions. The individual elements of the Plan that may result in impacts on European Sites have been identified as including the following:

- Settlement strategy, including population growth around key population centres including Tuam (Hub town) and the key towns of Ballinasloe, Loughrea, Oranmore, Athenry, Gort, Clifden, Portumna and Maigh Cuilinn
- Rural housing policy and one off rural housing
- Industrial and enterprise development
- Retail development
- Facilitation of agricultural intensification and agricultural diversification
- Promotion of forestry
- Expansion of wind energy as part of the County Galway Wind Energy Strategy (WES) (see below)
- Promotion of wave and tidal energy
- Promotion of other renewable energy including solar, bio-energy and heat energy distribution
- Expansion of mineral extraction and processing
- Increase in recreational demand and facilities associated with the increased population

- Development of tourism at key areas including Conamara, East Galway, The Burren and The Gaeltacht, all of which are at least partly located within European Sites
- Provision of walking and cycling routes (including those cycle routes listed in Table 5.1 of the Plan)
- Upgrade and improvement works on national and non-national roads (including those outlined as priority schemes in Table 5.1 and 5.2 of the Plan)
- Development of marinas, ports, harbours, piers and slipways
- Water supply services investment programme (including those projects listed in Table 6.2 of the Plan)
- Wastewater services investment programme, including the roll-out and installation of wastewater treatment plants (including those projects listed in Table 6.4 of the Plan)
- Flood risk and management Strategy
- Upgrading of electricity transmission and distribution network
- Development of telecoms infrastructure
- Development of social infrastructure

A matrix describing the potential for each individual policy and objective of the Plan to adversely affect European sites is presented in Appendix II.

2.3.2.2 County Galway Wind Energy Strategy

Galway County Council has produced a *County Galway Wind Energy Strategy (WES)* which forms part of this Plan. The Strategy supports a plan led approach to wind energy development in County Galway and sets out a) Strategic Areas, b) Acceptable in Principle Areas, and c) areas Open for Consideration. It is the policy of the Council to maximize wind energy development in all three of these areas on a case by case basis subject to meeting specific requirements and guidance contained within the Strategy. An aim of the strategy is to meet a minimum target of 500 MW of wind energy in County Galway and to generate the equivalent of over 70% of its electricity needs from wind energy.

The strategy was itself subjected to SEA / AA. The Plan states as an objective *'to promote and facilitate wind farm developments in suitable locations, having regard to areas of the County designated for this purpose in the WES.*

Wind energy, if inappropriately sited can lead to a number of adverse effects on biodiversity and European Sites by *inter alia*: presenting a collision risk to vulnerable bird species; loss and disturbance of sensitive habitats; and, in the absence of suitable control measures, can present a potential risk to water quality of sensitive surface water ecosystems downstream. The following is a brief summary of the the Natura Impact Report² prepared on the WES:

Due to the potential of the WES Plan to result in likely significant effects on European Sites a Habitats Directive Assessment (HDA) of the WES was required under the Planning and Development Act, 2010 and the European Communities (Birds and Natural Habitats) Regulations, 2011.

The Screening Assessment identified the potential for the WES to have likely significant effects to a number of candidate Special Areas of Conservation (cSAC) and Special Protection Areas (SPAs) occurring within the sphere of influence of the WES.

The identification of potential impacts to Natura 2000 Sites [European Sites] was undertaken by examining how the WES could affect the conservation status of individual qualifying interests for which each Natura 2000 Site [European Site] is designated. Once the potential impacts and the pathways leading to such impacts were understood mitigation measures

² Doherty Environmental (2011). Natura Impact Report: Galway Wind Energy Strategy. Report prepared for Galway County Council.

were outlined to ensure that the implementation of the WES would not result in adverse effects to these qualifying interests and the Natura 2000 Sites.

It was recognised during the HDA that details concerning future wind energy developments in areas zoned for wind energy development by the WES were unknown and as a result not well understood at the level of strategic land use planning involved in formulating the WES. This uncertainty had implications for assessing in-combination effects with other plans and projects and also for making sure that the mitigation measures outlined in the HDA would ensure that likely significant effects were avoided. Therefore to avoid uncertainty with regard to the WES resulting in likely significant effects to Natura 2000 Sites [European Sites] a precautionary approach underpins the WES and the direction it affords to future wind energy developments. This approach is outlined in Objective WE11 of the WES which ensures that the Plan [WES] will not support any future wind energy developments that are likely to result in likely significant effects to Natura 2000 Sites [European Sites].

2.3.3 Identification of Potential Likely Significant Effects

This section documents the final stage of the screening process. It has used the information collected on the sensitivity of each European Site and describes any potential significant effects of implementation of the Plan. This assumes the absence of any controls, conditions or mitigation measures.

In determining the potential for significant effects, a number of factors have been taken into account. Firstly, the sensitivity of each European Site as included in Appendix I of this report. Secondly, the individual elements of the Plan and the potential effect they may cause on each Site were considered.

Impacts on Sites outside of Co.Galway are likely to be of an indirect nature, such as extensive drainage or eutrophication of watercourses in Co. Galway affecting surface or groundwater dependant Sites downstream, rather than direct habitat loss or disturbance of species.

Sites are screened out based on one or a combination of the following criteria:

- where it can be shown that there are no hydrological links between activities in Co. Galway and the Site to be screened
- where the Site is located at such a distance from Co. Galway that impacts are not foreseen
- where known threats or vulnerabilities at a Site cannot be linked to potential impacts that may arise from implementation of the Plan.

The screening of individual European Sites within Co. Galway is presented in Table 2.5, the screening of other European Sites within 15km of the County boundary is presented in Table 2.6.

Table 2.5 Screening of European Sites within County Galway

Site Name	Key Potential Impacts arising from the Plan	AA Required
000212 - Inishmaan Island cSAC	Recreational pressure through tourism development. Habitat loss through inappropriate development and agricultural intensification.	Yes
000213 - Inishmore Island cSAC	Recreational pressure through tourism development. Habitat loss through inappropriate development and agricultural intensification.	Yes
000216 - River Shannon Callows cSAC	Direct habitat loss through riverside development and intensification of agriculture. Pollution of watercourses during construction through runoff of silt and other contaminants. Disturbance of otter from riverside development and recreational pressure. In combination effects resulting from development facilitated by Westmeath County Development Plan 2014 – 2020 and Roscommon County Development Plan.	Yes
000218 - Coolcam Turlough cSAC	Drinking water abstraction and drainage from quarrying within the catchment of the Site could affect the local groundwater levels. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
000231 - Barroughter Bog cSAC	Most significant impacts would come from peat cutting and drainage within the catchment of the bog could affect the local groundwater levels. Burning is a significant threat.	Yes
000238 - Caherglassaun Turlough cSAC	Agricultural intensification leading to loss of habitat and species diversity. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Water abstraction. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
000242 - Castletaylor Complex cSAC	Agricultural intensification leading to loss of habitat and species diversity. Development of a regional water scheme in the catchment could lead to lowering of the water table and result in habitat loss and/or fragmentation.	Yes
000248 - Cloonmoylan Bog cSAC	Water abstraction, peat cutting, burning and drainage within the catchment of the bog could affect the local groundwater levels and subsequent habitat loss and/or fragmentation	Yes
000252 - Coole-Garryland Complex cSAC	Agricultural intensification leading to habitat loss or fragmentation. Developments in catchment giving rise to increased levels of nutrients in runoff leading to eutrophication of the Gort River which supplies Coole Lake.	Yes
000255 - Croaghill Turlough cSAC	Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Water abstraction. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
000261 - Derrycrag Wood Nature Reserve cSAC	The Site is a contained within a nature reserve and is unlikely to be impacted by the CDP.	No
000268 - Galway Bay Complex cSAC	Urban expansion and recreational pressures leading to habitat loss and fragmentation and loss / disturbance of key species. Increased risk of eutrophication affecting some of the lagoons.	Yes
000278 - Inishbofin and Inishshark cSAC	Recreational pressure through tourism development. Habitat loss through inappropriate development and agricultural intensification.	Yes
000285 - Kilsallagh Bog cSAC	Water abstraction, peat cutting, afforestation and drainage within the catchment of the bog could affect the local groundwater levels.	Yes
000286 - Kiltartan Cave (Coole) cSAC	Recreational use by cavers leading to disturbance of key species.	Yes
000295 - Levally Lough cSAC	Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Water abstraction. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
000296 - Lisnageeragh Bog and Ballinastack Turlough cSAC	Water abstraction, peat cutting, afforestation and drainage within the catchment of the Site could affect the local groundwater levels, leading to loss of both bog and turlough habitats.	Yes
000297 - Lough Corrib cSAC	Uncontrolled discharge of sewage, seasonal disturbance from shooting and fishing activities may impact on bird usage. Suburbanisation and holiday home developments on the shores may also affect water quality. Continued peat cutting poses a threat.	Yes
000299 - Lough Cutra cSAC	Disturbance of key species due to loss or exclusion from important roosting Sites .	Yes
000301 - Lough Lurgeen Bog/Glenamaddy Turlough cSAC	Water abstraction, peat cutting, burning and drainage within the catchment of the Site could affect the local groundwater levels, leading to loss of both bog and turlough habitats.	Yes
000304 - Lough Rea cSAC	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
000308 - Loughatorick South Bog cSAC	Afforestation, and drainage within the catchment of the Site could affect the local groundwater levels, leading to loss of bog habitat.	Yes
000318 - Peterswell Turlough cSAC	Direct habitat loss through agricultural improvement and grazing on the Site.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
000319 - Pollnacknockaun Wood Nature Reserve cSAC	The Site is contained within a nature reserve and is unlikely to be impacted by the CDP.	No
000322 - Rahasane Turlough cSAC	Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to loss of both bog and turlough habitats.	Yes
000324 - Rosroe Bog cSAC	Peat cutting and agricultural intensification leading to loss of habitat. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to degradation of bog habitat.	Yes
000326 - Shankill West Bog cSAC	Peat cutting, agricultural intensification and afforestation leading to loss of habitat. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to loss of bog and fen habitat.	Yes
000328 - Slyne Head Islands cSAC	Agricultural intensification and overgrazing leading to habitat and species loss.	Yes
000330 - Tully Mountain cSAC	Agricultural intensification and overgrazing leading to habitat and species loss. Quarrying also poses a threat to the dry heath habitat.	Yes
000474 - Ballymaglancy Cave, Cong cSAC	Recreational use by cavers leading to disturbance of key species.	Yes
000606 - Lough Fingall Complex cSAC	Agricultural Intensification and drainage schemes within the catchment of the Site leading to habitat loss and/or fragmentation.	Yes
001228 - Aughrusbeg Machair and Lake cSAC	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Agricultural intensification and overgrazing leading to loss of machair habitat.	Yes
001242 - Carrownagappul Bog cSAC	Water abstraction, peat cutting and drainage within the catchment of the bog could affect the local groundwater levels, leading to loss of habitat.	Yes
001251 - Cregduff Lough cSAC	Agricultural intensification and recreational pressure leading to habitat loss and/or fragmentation.	Yes
001257 - Dog's Bay cSAC	Recreational pressure through tourism development. Habitat loss through inappropriate development and agricultural intensification.	Yes
001271 - Gortnandarragh Limestone Pavement cSAC	Land reclamation, quarrying and changes in agricultural practices leading to loss of limestone pavement habitat.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
001275 - Inisheer Island cSAC	Changes in agricultural practices leading to loss of limestone pavement habitat.	Yes
001285 - Kiltiernan Turlough cSAC	Alteration of water levels through the development of flood controls, land improvement and intensification of agriculture are the principle potential impacts on this Site.	Yes
001309 - Omev Island Machair cSAC	Recreational pressure through tourism development. Habitat loss through inappropriate development and agricultural intensification. Development in catchment of Fahy Lough giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
001311 - Rusheenduff Lough cSAC	Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
001312 - Ross Lake and Woods cSAC	Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
001313 - Rosturra Wood cSAC	Impacts from implementation of the CDP are unlikely. The Site is managed as a Nature Reserve and as part of the People's Millennium Forest Project,	No
001321 - Termon Lough cSAC	Development in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Drainage schemes, leading to a lowering of the water table and subsequent habitat loss.	Yes
001774 - Lough Carra/Mask Complex cSAC	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Drainage schemes, leading to a lowering of the water table and subsequent habitat loss. Changes in land use management and agricultural intensification may lead to loss of habitat such as limestone pavement.	Yes
001913 - Sonnagh Bog cSAC	Peat cutting and drainage within the catchment of the bog could affect the local groundwater levels, leading to loss of habitat. The main threat to this Site is from afforestation and associated forestry activities.	Yes
001926 - East Burren Complex cSAC	Changes in land use management and agricultural intensification may lead to loss of habitat such as limestone pavement. Changes to water quality from agricultural runoff and onsite waste water treatment systems.	Yes
002008 - Maumturk Mountains cSAC	Agricultural intensification and overgrazing leading to loss of bog and heath habitat. Changes to water quality from agricultural runoff	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
002031 - The Twelve Bens/Garraun Complex cSAC	Agricultural intensification, overgrazing and afforestation leading to loss of bog and heath habitat. Changes to water quality from agricultural runoff	Yes
002034 - Connemara Bog Complex cSAC	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Agricultural intensification, peat cutting and afforestation leading to loss of key habitats.	Yes
002074 - Slyne Head Peninsula cSAC	Agricultural intensification and overgrazing. Inappropriate development and development of leisure and tourism leading to loss of machair. Aquaculture and leisure activities leading to loss of marine habitats	Yes
002110 - Corliskea/Trien/Cloonfelliv Bog cSAC	Peat cutting and drainage within the catchment of the bog could affect the local groundwater levels, leading to loss of habitat. The main threat to this Site is from afforestation and associated forestry activities.	Yes
002111 - Kilkieran Bay and Islands cSAC	Aquaculture activities, over-grazing in machair, intensification of agricultural practices	Yes
002117 - Lough Coy cSAC	Development in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Drainage schemes, leading to a lowering of the water table and subsequent habitat loss. Agricultural intensification leading to grazing pressure.	Yes
002118 - Barnahallia Lough cSAC	Abstraction of drinking water, eutrophication from surrounding agricultural activities	Yes
002119 - Lough Nageeron cSAC	Eutrophication from surrounding agricultural activities.	Yes
002129 - Murvey Machair cSAC	Eutrophication from surrounding agricultural activities, overgrazing.	Yes
002130 - Tully Lough cSAC	Eutrophication from surrounding agricultural activities, agricultural intensification, leading to loss of bog and wet grassland habitats	Yes
002180 - Gortacarnaun Wood cSAC	Impacts unlikely to arise	No
002181 - Drummin Wood cSAC	Impacts unlikely to arise	No
002213 - Glenloughaun Esker cSAC	Quarrying, overgrazing and agricultural improvement leading to habitat loss.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
002241 - Lough Derg, North-East Shore cSAC	Eutrophication from surrounding agricultural activities and development. Habitat loss from construction of new housing or lakeside leisure development. Afforestation.	Yes
002244 - Ardrahan Grassland cSAC	Eutrophication from surrounding agricultural activities. Agricultural intensification.	Yes
002265 - Kingstown Bay cSAC	No known significant threats. Impacts unlikely.	No
002293 - Carrowbaun, Newhall and Ballylee Turloughs cSAC	Eutrophication from surrounding agricultural activities. Agricultural intensification.	Yes
002294 - Cahermore Turlough cSAC	Eutrophication from surrounding agricultural activities. Agricultural intensification.	Yes
002295 - Ballinduff Turlough cSAC	Eutrophication from surrounding agricultural activities. Agricultural intensification.	Yes
002296 - Williamstown Turloughs cSAC	Eutrophication from surrounding agricultural activities. Agricultural intensification.	Yes
002317 - Cregg House Stables, Crusheen cSAC	Development or renovations to buildings. Loss of foraging areas and winter hibernation Sites.	Yes
002347 - Camderry Bog cSAC	Habitat loss through peat cutting and afforestation. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to degradation of bog habitat.	Yes
002350 - Curraglehanagh Bog cSAC	Habitat loss through peat cutting and afforestation. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to degradation of bog habitat.	Yes
002352 - Monivea Bog cSAC	Habitat loss through peat cutting and afforestation. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to degradation of bog habitat.	Yes
002356 - Ardgraique Bog cSAC	Habitat loss through peat cutting and afforestation. Drainage schemes within the catchment of the Site could affect the local groundwater levels, leading to degradation of bog habitat.	Yes
004031 - Inner Galway Bay SPA	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from shoreline development (including development of aquaculture) and recreational pressure.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
004042 - Lough Corrib SPA	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from shoreline development and recreational pressure. Potential for in-combination effects resulting from development facilitated by the Mayo, Roscommon and Sligo County Development Plans.	Yes
004056 - Lough Cutra SPA	No known threats according to Site synopsis. Intensification of recreational use could lead to disturbance of key bird species and decreased water quality.	Yes
004058 - Lough Derg (Shannon) SPA	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from lakeside development and recreational pressure.	Yes
004062 - Lough Mask SPA	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from lakeside development and recreational pressure.	Yes
004089 - Rahasane Turlough SPA	Arterial drainage and ground water pollution in the zone of contribution to the turlough has the potential to impact on water quality and quantity. Changing agricultural practices may also cause impacts.	Yes
004096 - Middle Shannon Callows SPA	Arterial drainage, land improvement and intensification of agriculture are the principle potential impacts on this Site. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from lakeside development and recreational pressure.	Yes
004097 - River Suck Callows SPA	Arterial drainage, land improvement and intensification of agriculture are the principle potential impacts on this Site. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from lakeside development and recreational pressure.	Yes
004107 - Coole-Garryland SPA	No known threats according to Site synopsis. Intensification of recreational use could lead to disturbance of key bird species and decreased water quality.	Yes
004134 - Lough Rea SPA	Direct habitat loss through inappropriate development. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from agricultural runoff and onsite waste water treatment systems. Disturbance of key bird species from lakeside development and recreational pressure.	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
004142 - Cregganna Marsh SPA	Proximity to Galway City may lead to a number of impacts: Direct habitat loss through drainage of wetland habitat. Developments in catchment giving rise to increased levels of sediment and nutrients in runoff. Changes to water quality from surface water runoff and waste water treatment systems. Disturbance of key bird species from existing and potential developments in the surrounding areas and recreational pressure.	Yes
004144 - High Island, Inishshark and Davillaun SPA	High Island, Inishshark and Davillaun are uninhabited islands and there are no known significant threats to the breeding seabird populations. Any future development such as increased recreation may lead to disturbance of key bird species.	Yes
004152 - Inishmore SPA	Any future development such as increased recreation may lead to disturbance of key bird species.	Yes
004159 - Slyne Head to Ardmore Point Islands SPA	Any future development such as increased recreation may lead to disturbance of key bird species.	Yes
004168 - Slieve Aughty Mountains SPA	Afforestation leading to reduction or fragmentation to the area of foraging habitat of key bird species	Yes
004170 - Cruagh Island SPA	Impacts arising from the Plan unlikely.	Yes
004181 - Connemara Bog Complex SPA	No known threats recorded. Impacts from Plan unlikely.	No
004221 - Illaunnaon SPA	No known threats recorded. Impacts from Plan unlikely.	No
004231 - Inishbofin, Omev Island and Turbot Island SPA	Changes in agricultural practices could impact on the species.	Yes

Table 2.6 Screening of European Sites within 15km of County Galway Border

Sites that straddle the County boundary (within and outside of County Galway) are assessed in Table 2.5

Site Name	Key Potential Impacts arising from the Plan	AA Required
000014 - Ballyallia Lake cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
000016 - Ballycullinan Lake cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
000019 - Ballyogan Lough cSAC	Drainage in cathment may lead to loss of habitat	Yes
000020 - Black Head-Poulsallagh Complex cSAC	Impacts unlikely. No hydrological links	No
000032 - Dromore Woods And Loughs cSAC	Drainage in cathment may lead to loss of habitat	Yes
000054 - Moneen Mountain cSAC	Impacts unlikely. No hydrological links	No
000057 - Moyree River System cSAC	Site is vulnerable to water pollution and agricultural intentsificaiton	Yes
000461 - Ardkill Turlough cSAC	Impacts unlikely. No hydrological links	No
000475 - Carrowkeel Turlough cSAC	Impacts unlikely. No hydrological links	No
000479 – Cloughmoyne cSAC	Impacts unlikely as Site is effectively located upstream from Co Galway	No
000480 - Clyard Kettle-Holes cSAC	Impacts unlikely as Site is effectively located upstream from Co Galway	No
000484 - Cross Lough (Killadoon) cSAC	Impacts unlikely. No hydrological links	No
000503 - Greaghans Turlough cSAC	Site is vulnerable to water pollution and agricultural intentsificaiton	Yes
000504 - Kilglassan/Caheravoostia Turlough Complex cSAC	Site is vulnerable to water pollution and agricultural intentsificaiton	Yes
000525 - Shrule Turlough cSAC	Site is vulnerable to drainage and eutrophication in the catchment	Yes
000541 - Skealaghan Turlough cSAC	Impacts unlikely. No hydrological links	No
000566 - All Saints Bog And Esker cSAC	Drainage in cathment may lead to loss of habitat	Yes
000575 - Ferbane Bog cSAC	Impacts unlikely due to distance from Co. Galway	No
000576 - Fin Lough (Offaly) cSAC	Impacts unlikely due to distance from Co. Galway	No
000580 - Mongan Bog cSAC	Impacts unlikely due to distance from Co. Galway	No

Site Name	Key Potential Impacts arising from the Plan	AA Required
000581 - Moyclare Bog cSAC	Impacts unlikely due to distance from Co. Galway	No
000588 - Ballinturly Turlough cSAC	Drainage in cathment may lead to loss of habitat	Yes
000592 - Bellanagare Bog	Impacts unlikely due to distance from Co. Galway	No
000597 - Carrowbehy/Caher Bog cSAC	Impacts unlikely due to distance from Co. Galway	No
000600 - Cloonchambers Bog cSAC	Impacts unlikely due to distance from Co. Galway	No
000607 - Errit Lough cSAC	Impacts unlikely due to distance from Co. Galway	No
000609 - Lisduff Turlough cSAC	Site is vulnerable to water pollution in the catchment	Yes
000610 - Lough Croan Turlough cSAC	Site is vulnerable todrainage in the catchment.	Yes
000611 - Lough Funshinagh cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
000612 - Mullygollan Turlough cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
000641 - Ballyduff/Clonfinane Bog cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
000647 - Kilcarren-Firville Bog cSAC	Site is vulnerable todrainage in the catchment.	Yes
000919 - Ridge Road, Sw Of Rapemills cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
000996 - Ballyvaughan Turlough cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
001529 - Lough Cahasy, Lough Baun And Roonah Lough cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
001536 - Mocerha Lough cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
001625 - Castlesampson Esker cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
001637 - Four Roads Turlough cSAC	Site may be vulnerable to drainage in the catchment	Yes

Site Name	Key Potential Impacts arising from the Plan	AA Required
001683 - Liskeenán Fen cSAC	Impacts unlikely due to distance from Co. Galway	No
001776 - Pilgrim's Road Esker cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
001912 - Glendree Bog cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
001932 - Mweelrea/Sheeffry/Erriff Complex cSAC	Development in Killary harbour may threaten water quality	Yes
002126 - Pollagoona Bog cSAC	Site may be vulnerable to drainage in the catchment	Yes
002157 - Newgrove House cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
002165 - Lower River Shannon cSAC	Site may be vulnerable to drainage in the catchment and water pollution upstream	Yes
002214 - Killeglan Grassland cSAC	Impacts unlikely due to known threats/vulnerabilities at the Site	No
002245 - Old Farm Buildings, Ballymacrogan cSAC	Impacts unlikely due to known threats/vulnerabilities at the Site	No
002246 - Ballycullinan, Old Domestic Building cSAC	Impacts unlikely due to known threats/vulnerabilities at the Site	No
002298 - River Moy cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
002312 - Slieve Bernagh Bog cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
002314 - Old Domestic Buildings, Rylane cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
002320 - Kildun Souterrain cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
002338 - Drumalough Bog cSAC	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the site	No
002339 - Ballynamona Bog And Corkip Lough cSAC	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
002353 - Redwood Bog cSAC	Impacts unlikely due known threats/vulnerabilities at the Site	No

Site Name	Key Potential Impacts arising from the Plan	AA Required
004005 Cliffs of Moher SPA	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
004017 Mongan Bog SPA	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
004041 Ballyallia Lough SPA	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
004051 Lough Carra SPA	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
004086 River Little Brosna Callows SPA	Loss of habitat due to drainage impacts in catchment	Yes
004103 All Saints Bog SPA	Loss of habitat due to drainage impacts in catchment	Yes
004105 Bellanagare Bog SPA	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
004137 Dovegrove Callows SPA	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No
004139 Lough Croan Turlough SPA	Loss of habitat due to drainage impacts in catchment	Yes
004140 Four Roads Turlough SPA	Loss of habitat due to drainage impacts in catchment	Yes
004212 Cross Lough (Killadoon) SPA	Impacts unlikely due to distance from Co. Galway and absence of hydrological links	No
004220 Corofin Wetlands SPA	Impacts unlikely due to distance from Co. Galway and known threats/vulnerabilities at the Site	No

2.4 Other Plans and Programmes

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combinations with the plan or project, have the potential to adversely impact upon European Sites. Table 2.7 lists the plans or projects that may interact with the Plan to cause in-combination effects to European Sites. The plans or projects are listed according to a spatial hierarchy of International, National, Regional/Local Projects and Plans.

Given the uncertainties that exist with regard to the scale and location of developments facilitated by the Plan, it is recognised that the identification of cumulative impacts is limited and that the assessment of in-combination effects will need to be undertaken in a more comprehensive manner at the project-level.

Table 2.7 Plans & Projects 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 chemical water quality objectives for salmonid waters and cyprinid waters.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
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 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.

Directive	Purpose	Interactions resulting in Cumulative Impacts
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.
National		
National Development Plan 2007-2013	Objectives of the NDP are to promote more balanced spatial and economic development.	<p>Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure under the National Development Plan.</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
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.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure. Provision of infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation.
Grid 25	Grid25 is a high-level strategy outlining how EirGrid intends to undertake the development of the electricity transmission grid in the short, medium and longer terms, to support a long-term sustainable and reliable electricity supply. The Grid25 strategy thereby seeks to implement the provisions of the 2007 Government White Paper on Energy - "Delivering a Sustainable Energy Future for Ireland" in terms of development of electricity transmission infrastructure. The Grid25 Implementation Programme (IP) is a practical strategic overview of how the early stages of Grid25 are intended to be implemented.	Potential in-combination impacts may arise where there is a requirement to provide for new electrical infrastructure. Provision of infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation.
Regional		
Regional Planning Guidelines For The West Region 2010 – 2022.	Policy document which aims to direct the future growth of the Midlands Area over the medium to long term and works to implement the strategic planning framework set out in the National Spatial Strategy (NSS)	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure. Provision of infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Local		
Mayo County Development Plan 2008 - 2014 Roscommon County Development Plan 2008 - 2014 Offaly County Development Plan 2009 - 2015 North Tipperary County Development Plan 2010 - 2016	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant Local Authorities.	Galway shares its boundary with a number of counties in the west. Furthermore a number of European Sites are located in more than one county. Similar development plans are in existence throughout the region, accordingly these plans acting

Directive	Purpose	Interactions resulting in Cumulative Impacts
Clare County Development Plan 2011 - 2017 Galway City Council Development Plan 2011 - 2017 Ballinasloe Development Plan 2009 - 2015		alone or in combination can have a cumulative impact on European Sites located within County Galway. Provision of infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Co. Galway Wind Energy Strategy	The Strategy supports a plan led approach to wind energy development in County Galway and sets out a) Strategic Areas, b) Acceptable in Principle Areas, and c) areas Open for Consideration.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure. Provision of infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality Disturbance during construction / operation
Connemara Infrastructure and Interpretation Plan 2012	The objectives of the Connemara Infrastructure and Interpretation Plan are to engage and inform visitors on the uniqueness and value of the Connemara landscape both aesthetically and as a wildlife resource.	Potential habitat loss may occur during the construction of interpretation points, seating, etc Provision of such infrastructure may result in: <ul style="list-style-type: none"> • Habitat loss • Alteration of hydrology • Deterioration in water quality Disturbance during construction / operation

2.5 Conclusions

The likely impacts that will arise from the implementation of the Development Plan have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network. On the basis of the findings of this Screening for Appropriate Assessment, it is concluded that the Plan:

- (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 Appropriate Assessment 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 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 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 of 103 Sites have been identified that may be adversely affected through the implementation of the Plan. These Sites are categorised into different ecosystem types as presented in Table 3.1. As can be seen in Table 3.1, most of the Sites potentially affected by the Plan have been designated for habitats and species that are dependent on groundwater and surface water quality and availability.

Table 3.1 European Sites subject to Stage 2 Appropriate Assessment

Rivers and Lakes	Bogs	Turloughs	Other	SPAs
Aughrusbeg Machair and Lake cSAC	All Saints Bog and Esker cSAC	Ballinduff Turlough cSAC	Ardrahan Grassland cSAC	All Saints Bog SPA
Ballyogan Lough cSAC	Ardgraique Bog cSAC	Ballinturly Turlough cSAC	Ballymaglancy Cave, Cong cSAC	Coole-Garryland SPA
Lough Carra/Mask Complex cSAC	Barnahallia Lough cSAC	Caherglassaun Turlough cSAC	Cregg House Stables, Crusheen cSAC	Creganna Marsh SPA
Lough Corrib cSAC	Barroughter Bog cSAC	Cahermore Turlough cSAC	Dog's Bay cSAC	Cruagh Island SPA
Lough Cutra cSAC	Camderry Bog cSAC	Carrowbaun, Newhall and Ballylee Turloughs cSAC	Dromore Woods and Loughs cSAC	Four Roads Turlough SPA
Lough Nageeron cSAC	Carrowmagappul Bog cSAC	Castletaylor Complex cSAC	Galwaly Bay Complex cSAC	High Island Inishark and Davillaun SPA
Lough Rea cSAC	Cloonmoylan Bog cSAC	Coolcam Turlough cSAC	Glenloughaun Esker cSAC	Inishbofin, Omey Island and Turbot Island
Lower River Shannon cSAC	Connemara Bog Complex cSAC	Coole-Garryland Complex cSAC	Gortnandarragh Limestone Pavement cSAC	Inishmore SPA
Moyree River Systems cSAC	Corliskea/Trien/Cloonfelliv Bog cSAC	Croaghill Turlough cSAC	Inishbofin and Inishark cSAC	Inner Galway Bay SPA
Ross Lake and Woods cSAC	Cregduff Lough cSAC	East Burren Complex cSAC	Inisheer Island cSAC	Lough Corrib SPA
Rusheenduff lough cSAC	Curraghlahanagh Bog cSAC	Four Roads Turlough cSAC	Inishmaan Island cSAC	Lough Croan Turlough SPA
Termon Lough cSAC	Kilcarren-Firville Bog cSAC	Greaghans Turlough cSAC	Inishmore Island cSAC	Lough Cutra SPA

Rivers and Lakes	Bogs	Turloughs	Other	SPAs
Tully Lough cSAC	Kilsallagh Bog cSAC	Kilglassan/Cahera voostia/Turlough Complex cSAC	Kilkieran Bay and Islands cSAC	Lough Derg (Shannon) SPA
	Lisnageeragh Bog and Ballinastack Turlough cSAC	Kiltiernan Turlough cSAC	Kiltartan Cave (Coole) cSAC	Lough Mask SPA
	Lough Lurgeen Bog/Glenamaddy turlough cSAC	Levally Turlough cSAC	Lough Derg, North-east Shore cSAC	Lough Rea SPA
	Loughatorick South Bog cSAC	Lisduff Turlough cSAC	Maumturk Mountains cSAC	Middle Shannon Callows SPA
	Monivea Bog cSAC	Lough Coy cSAC	Murvey Machair cSAC	Rahasane Turlough SPA
	Pollagoona Bog cSAC	Lough Croan Turlough cSAC	Mweelrea/Sheeffry/Erriff Complex	River Little Brosna Callows
	Rosroe Bog cSAC	Lough Fingall Complex cSAC	Omey Island Machair cSAC	River Suck Callows SPA
	Shankill West Bog cSAC	Peterswell Turlough cSAC	River Shannon Callows cSAC	Slieve Aughty Mountains SPA
	Sonnagh Bog cSAC	Rahasane Turlough cSAC	Slyne Head Islands cSAC	Slyne Head to Ardmore
	The Twelve Bens/Garraun Complex cSAC	Shrule Turlough cSAC	Slyne Head Peninsula cSAC	Slyne Head to Ardmore Point Islands SPA
		Williamstown Turloughs cSAC	Tully Mountain cSAC	

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 Plan 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 decrease in water quality / quantity (e.g. through inadequate wastewater treatment, run-off of pollutants during construction and operation of developments, agricultural runoff)

The Plan is a high level plan that provides a framework for sustainable development within County Galway. Plan does not prescribe the particular locations (Site specific) of any developments of infrastructure. Overall, the Plan underpins the development of housing, communities and urban centres with supporting transport, water, waste, energy and communication infrastructure within the County.

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.

There is a potential that any Designated Site within the functional area of the Plan may be 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 housing and commercial/industrial properties could lead to loss of habitats if inappropriately located within the boundaries of a Designated Site. Indirectly, habitat loss may also occur through draining of development lands adjacent to or hydro-geologically linked to designated Sites that support surface or ground water dependant habitats such as bogs, fens, turloughs and other wetlands (see Table 3.1 above).

The Plan does not allow for any additional land to be zoned for development. The Plan does however support the development under certain circumstances of otherwise unzoned, agricultural land for residential purposes and this could lead to habitat loss through inappropriately sited developments. Similarly, the Plan supports the development of infrastructural projects that may lead to loss of habitat within designated Sites. Those European Sites that could potentially be affected by habitat loss include those Sites listed in Table 3.1 above that are designated for terrestrial habitats and species.

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.

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, electricity supply lines or wind turbines may interrupt the flight paths of birds or newly installed bridges disturb the migration of salmon. Disturbance impacts to birds, as outlined in Section 3.2.3 below may also lead to fragmentation of bird populations. All SPAs identified in Table 3.1 are vulnerable to such impacts. Other European Sites that could potentially be affected by fragmentation include those Sites listed in Table 3.1 above that are designated for terrestrial and freshwater habitats and species.

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 designated areas. Sources of disturbance include noise, vibration, light, construction and operation activities or other sources of disturbance arising from recreation and amenity or from the inappropriate timing of works.

The European Sites potentially affected include those cSACs designated for Otter (*Lutra lutra*) (nine Sites), Harbor Seal (*Phoca vitulina*) (two Sites) and Lesser Horseshoe Bat (*Rhinolophus hipposideros*) (ten Sites) that occur within county Galway (see Table 2.1 above). All SPAs designated for bird species that can be vulnerable to disturbance, particularly during the nesting season could also be impacted due to disturbance.

The Plan supports the development of infrastructural development and the promotion of tourism and recreation. These projects have the potential to cause disturbance impacts to key species if located in proximity to relevant European Sites.

3.2.4 Changes in Key Indicators of Conservation Value

The key indicators of conservation value for the majority of European Sites in County Galway are surface water and groundwater quality and quantity. Impacts on European Sites may occur where there are hydrological connections between the Sites and development areas. Implementation of the Plan may result in alterations to the hydrological regime or physical environment of Sites through water abstraction, drainage, and discharges to watercourses, coastal waters or groundwater

resources. Of particular importance will be the provision of water supplies and the disposal of wastewater.

In County Galway there are a number of different types of wastewater supplies, from public schemes (ca 28%), individual septic tanks (ca 63%) and individual treatment systems (ca 5%). 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 European Sites potentially affected include those that are surface water dependant (those river and lake Sites listed in Table 3.1 above). These Sites are vulnerable as waste water from a number of settlements within Galway is discharged to rivers which ultimately drain into sensitive lakes and coastal waters. Cumulative impacts through waste water discharges from surrounding counties may also affect these Sites, as well as indirectly affecting Sites further downstream.

The abstraction of water for public and group schemes supply has the potential to affect European sites where hydrological pressures arise. Abstraction of both surface and ground water contributes to the supply of drinking water to the County. Galway County Council operates 38 public water supply (Irish Water) schemes throughout the county and approximately 80% of the treated water supplied through this system is abstracted from surface water sources. Private supplies provide the alternative for those areas that are not served by a public water supply and comprise mainly of wells for single dwellings and certain private group water schemes for rural settlements.

Development located in proximity to groundwater dependent habitats may interfere with the hydro geological regime that supports groundwater-dependant qualifying features such as fens, bogs and turloughs. Drainage on and around bogs will increase flow from the bog area and may cause drying out. This will reduce the extent and quality of habitat. The European Sites potentially affected include all of those Sites that are designated for habitats and species which are dependant on surface or ground water (Table 3.1).

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. Such detailed site specific Conservation Objectives have been prepared for 4 European sites that are subject to this assessment (see Appendix I).

These site-specific conservation objectives aim to define favourable conservation condition for the qualifying habitats and species at that site. The conservation objectives of each qualifying habitat and species for European sites are presented as a selection of attributes against which targets are set. All of these attributes in relation to each relevant feature have been considered in relation to the potential impacts associated with the Plan.

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.'*³

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*

³ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.⁴

Where no management plan or detailed conservation objectives are available, the NPWS has provided generic Conservation Objectives for designated European sites.

Generic Conservation Objectives for cSACs have been provided as follows:

- *To maintain Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation condition.*

One generic Conservation Objective has been provided for SPAs as follows:

- *To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.*

Conservation Objectives, where available, were downloaded from the NPWS website (www.npws.ie) in January 2014. Conservation Objectives for those sites screened in for Stage 2 AA are presented in Appendix I.

⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Section 4 Mitigation Measures

4.1 Introduction

Where it cannot be demonstrated that there will be no adverse effects from implementation of the Plan, mitigation measures have been devised. The measures that have been incorporated are compatible with those proposed by the SEA Environmental Report and with other relevant plans and programmes e.g. Programme of Measures proposed by the River Basin Management Plan and SEA. The means by which potential effects on the Natura 2000 network due to the implementation of individual policies and objectives of the Plan are mitigated is presented in Appendix II.

4.2 Measures to protect Habitats and Species

As outlined in Section 3.2 of this assessment a number of significant effects that could impact on habitats and species have been identified.

Measures have been included in the policies and objectives of the Plan that will ensure these impacts are avoided⁵. As a result of the Appropriate Assessment and Strategic Environmental Assessment of the Plan, a number of policies have been introduced and existing policies and objectives amended to strengthen the protection afforded to European Sites.

These policies will ensure that appropriate assessments are carried out where development projects are likely to have significant effects on European Designated Sites. This will ensure that project level effects, which cannot be predicted at the Development Plan level, will be mitigated and avoiding encroachment on protected Sites through inappropriate development will be contributed towards.

Objectives and policies within the County Galway Development Plan that will act to protect the Natura 2000 network include the following:

Chapter 2 - Spatial Strategy, Core & Settlement Strategy

Section 2.3 Development Strategy Objectives

Objectives DS 6 – Natura 2000 Network and Habitats Directive Assessment

Protect European Sites that form part of the Natura 2000 network (Including Special Protection Areas and Special Areas of Conservation) in accordance with the requirements in the EU Habitats Directive (92/43/EEC), EU Birds Directive (2009/147/EC), the Planning and Development (Amendment) Act 2010, the European Communities (Birds and Natural Habitats) Regulations 2011(SI No.477 of 2011) (and any subsequent amendments or updated legislation) and having due regard to the guidance in the Appropriate Assessment Guidelines 2010 (and any updated or subsequent guidance). A plan or project (e.g. proposed development) within the Plan Area will only be authorised after the competent authority (Galway County Council) has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and/or a Habitats Directive Assessment where necessary, that:

1. The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European Site (either individually or in combination with other plans or projects); or
2. The Plan or project will have significant adverse effects on the integrity of any European Site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative

⁵ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- (a) no alternative solution available;
- (b) imperative reasons of overriding public interest for the plan to proceed; and
- (c) adequate compensatory measures in place.

solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

3. The Plan or project will have a significant adverse effect on the integrity of any European Site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of 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. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

Objective DS 9 – Projects/Associated Improvement Works/Infrastructure and Appropriate Assessment

Ensure that proposed projects and any associated improvement works or associated infrastructure relating to renewable energy projects; water supply and abstraction; wastewater and discharges; flood alleviation and prevention; roads, power lines and telecommunications; and amenity and recreation provision are subject to Appropriate Assessment where relevant.

Objective DS 10 – Impacts of Developments on Protected Sites

Have regard to any impacts of development on or near existing and proposed Natural Heritage Areas, Special Protection Areas and Special Areas of Conservation, Nature Reserves, Ramsar Sites, Wildfowl Sanctuaries, Salmonoid Waters, Refuges for Flora and Fauna, Conamara National Park, shellfish waters, freshwater pearl mussel catchments and any other designated sites including future designations.

Chapter 4 - Economic, Tourism & Retail Development

Section 4.14 Policies and Objectives – Economic Development & Tourism

Policy EDT 1 – Economic Development

Support sustainable economic development and employment creation in the County while simultaneously having regard to relevant planning legislation and guidance in order to ensure protection of the built and natural heritage, landscape/townscape/streetscape character of settlements and the rural countryside and general amenity.

Policy EDT 10 Tourism Developments

Tourism developments will be subject to appropriate assessment to safeguard the integrity of the Natura 2000 network of sites.

Objective EDT 23 - East Galway, Lough Derg and The Burren

- a) Facilitate the sustainable development of East Galway, Lough Derg and the Burren as cultural and tourist destinations while simultaneously safeguarding their integrity;
- b) Galway County Council to explore with Clare County Council, the proposal to add Burren Lowlands areas to the Burren and Cliffs of Moher Geopark;
- c) Promote active collaboration between all stakeholders both in Co.Galway and adjoining counties and region.

Chapter 5 - Roads & Transportation

5.2 Land Use Integration & Sustainable Transportation Policies and Objectives

Policy TI 1 – Transportation Strategy and Compliance with Legislation

It is the overarching policy of Galway County Council to comply with all relevant Irish and European planning and environmental legislation in implementing its Transportation Strategy.

Objective TI 5 – Road and Transportation Network Improvements

Facilitate the progression of and implement improvements to the existing National Road and Regional/Local Road networks including the priority transportation schemes, listed in **Table 5.1: Priority Transportation Infrastructure Projects for Co. Galway 2015-2021** and those listed within **Table 5.2: Regional/Local Projects proposed 2015-2021** subject to relevant Irish planning and European environmental legislation including Article 6 of the Habitats Directive and/or other environmental assessment, where appropriate.

Policy TI8 –Transportation Infrastructure Requirements for the Gateway and West of the County

It is the policy of Galway County Council to work with Galway City Council and all relevant statutory bodies to develop an appropriate infrastructural response to the transportation needs of the Galway Gateway, its environs and the west of the county, with a view to relieving congestion, improving travel times, increased safety of all road users and enhancing connectivity and access within the region and enhanced accessibility of the Western region in a national and international context. Any such solution shall have due regard to the necessity to protect the environment and will comply fully with the requirements of the Habitats Directive.

Chapter 6 - Water & Wastewater Infrastructure &, Waste Management & Extractive Industry

Section 6.21 Mineral Extraction and Quarry Policies and Objectives

Policy EQ 1 – Environmental Management Practice

Have regard to evolving best environmental management practice as set out in Environmental Protection Agency (EPA) *Guidelines 'Environmental Management in the Extractive Industry: Non Scheduled Minerals'* and to the recommendations of the EU guidance document *Undertaking Non-Energy Extractive Activities in Accordance with Natura 2000 Requirements..*

Policy EQ 2 – Adequate Supply of Aggregate Resources

Ensure adequate supplies of aggregate resources to meet future growth needs within County Galway, facilitate the exploitation of such resources where there is a proven need and market opportunity for such minerals or aggregates, and ensure that this exploitation of resources does not adversely affect the environment or adjoining existing land uses.

Objective EQ 2 – Management of Aggregate Extraction

The Council shall require the following in relation to the management of authorised aggregate extraction –

- a) All quarries shall comply with the requirements of the EU Habitats Directive, The Planning and Development (Amendment) Act 2010 and by the guidance as contained within the DoEHLG *Quarries and Ancillary Facilities Guidelines 2004*, the EPA *Guidelines 'Environmental Management in the*

Extractive Industry: Non Scheduled Minerals 2006 (including any updated/superseding documents) and to DM Standard 37 of this Development Plan;

b) Require development proposals on or in the proximity of quarry Sites, to carry out appropriate investigations into the nature and extent of old quarries (where applicable). Such proposals shall also investigate the nature and extent of soil and groundwater contamination and the risks associated with Site development works together with appropriate mitigation;

c) Have regard to the Landscape Character Assessment of the County and its recommendations including the provision of special recognition to the esker areas as referenced in *GCC Galway's Living Landscapes – Part 1: Eskers*;

d) Ensure that any quarry activity has minimal adverse impact on the road network;

e) Ensure that the extraction of minerals or aggregates does not adversely impact on residential or environmental amenity;

f) Protect all known un-worked deposits from development that might limit their scope for extraction.

Objective EQ 4 – Compliance with Article 6(3) of the EU Habitats Directive

Ensure that projects associated with the mineral extractive industry carry out screening for Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive, where required.

Chapter 7 - Energy/Renewable Energies & Communications Technology

Section 7.7 Information & Communications Technology Policies & Objectives

Objective ICT 1 – Facilitate the delivery of Telecommunications, Broadband and Digital Infrastructure

Support and facilitate the delivery of high capacity ICT infrastructure, Broadband Networks and Digital Broadcasting in the County having regard to the Government Guidelines *Telecommunications Antennae and Support Structures-Guidelines for Planning Authorities 1996* (DoEHLG) and Circular Letter PL 07/12 (including any updated/superseding documents) and where it can be demonstrated that the development will not have significant adverse effects on the environment including the integrity of the Natura 2000 network.

Chapter 8 - Climate Change & Flooding

Section 8.6 Climate Change, Air Quality & Radon Policies and Objectives

Policy CC 5 – Climate Change and the Natural Environment

The Council shall support a healthy and diverse natural environment with capacity to adapt by promoting the role of green networks in helping the county/region to mitigate and adapt to climate change by strengthening habitat networks, reducing habitat fragmentation and providing opportunities for species to migrate.

Objective CC 5 - An Ecosystems Approach and Land Use

Galway County Council shall implement an ecosystems approach (holistic approach) to land use and land use change and ensure that climate change adaptation measures are taken into account in planning decisions. The Council shall also

a) Have regard to any recommendations and forthcoming recommendations as outlined in the proposed National Raised Bog SAC Management Plan and the National Biodiversity Plan;

b) Integrate climate risk into the review of the Biodiversity Action Plan for County Galway 2008 - 2013;

c) Seek to control the spread of non-native and alien invasive species on land and water using new regulatory powers.

Section 8.8 Flood Risk Management Policies and Objectives

Policy FL 3 – Improvement and/or Restoration of Natural Flood Risk Management Functions

Where resources are available and subject to compliance with the Habitats and Birds Directives, the Council will contribute towards the improvement and/or restoration of the natural flood risk management functions of flood plains.

Chapter 9 - Heritage, Landscape and Environmental Management

Section 9.3 General Heritage Policies

Policy GH 1 - Conserve, protect and enhance the special character of the County as defined by its natural heritage and biodiversity, its built environment, landscape and cultural, social and sporting heritage.

Section 9.9 Natural Heritage & Biodiversity Policies & Objectives

Policy NHB 1 – Natural Heritage and Biodiversity

It is the policy of Galway County Council to support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas proposed Natural Heritage Areas Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries and Conamara National Park (and other designated sites including any future designations) and the promotion of the development of a green/ecological network within the Plan Area, in order to support ecological functioning and connectivity, create opportunities in suitable locations for active and passive recreation and to structure and provide visual relief from the built environment.

Policy NHB 2 – Non Designated Sites

Recognise that nature conservation is not just confined to designated Sites and acknowledge the need to protect non-designated habitats and landscapes and to conserve the biological diversity in the county.

Policy NHB 3 – Green Infrastructure

Pro Protect existing green infrastructure and provide additional green infrastructure where possible such as green roof technology and energy efficiency pumps.

Policy NHB 6 – National Biodiversity Plan, Galway County Heritage Plan and Galway County Biodiversity Plan

It is the policy of the Council to support the implementation of the National Biodiversity Plan and Galway County Biodiversity Plan and Galway County Heritage Plan in partnership with relevant stakeholders subject to available resources.

Policy NHB 7 - Invasive Species

It is a policy of the Council to support measures for the prevention and eradication of invasive species. This will include the dissemination of information to raise public awareness, the adoption of codes of practices/standard biosecurity measures in normal Local Authority activities consultation with relevant stakeholders, the promotion of the use of native species in amenity planting and landscaping and the recording of invasive/native species as the need arises and resources permit.

Policy NHB 8 – National Parks and Wildlife Service (NPWS) Management Plans

It shall be the policy of the Council to ensure that development takes into account relevant Management Plans prepared by NPWS for SACs and SPAs.

Objective NHB 1 – Protected Habitats and Species

Support the protection of habitats and species listed in the Annexes to and/or covered by the EU Habitats Directive (92/43/EEC) (as amended) and Birds Directive (2009/147/EC), and regularly occurring-migratory birds and their habitats, and species protected under the Wildlife Acts 1976-2000 and the Flora Protection Order.

Objective NHB 2 – Biodiversity and Ecological Networks

Support the protection and enhancement of biodiversity and ecological connectivity within the Plan Area, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive.

Objective NHB 4 – Geological and Geo-Morphological Systems

Protect and conserve geological and geo-morphological systems, Sites and features from inappropriate development that would detract from their heritage value and interpretation and ensure that any Plan or project affecting karst formations, eskers or other important geological and geo-morphological systems are adequately assessed with regard to their potential geophysical, hydrological or ecological impacts on the environment

Objective NHB 5 – Control of Invasive and Alien Invasive Species

Where the potential for spread of invasive species are identified as part of a development proposal the developer will be required to submit an invasive species management plan. A landscaping plan will be required for developments near water bodies and ensure that such plans do not include alien invasive species.

Objective NHB 6 – Protection of Bats and Bats Habitats

Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stone walls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Any assessment shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area, development will be prohibited or require mitigation and/or compensatory measures, as appropriate.

Objective NHB 7 – Eskers

Assess applications for quarrying and other proposed developments that are in close proximity to eskers that have the potential to impact on their landscape, scientific or amenity value.

Objective NHB 10 Protection of the Coastal Zone

Protect the amenity, character, visual, recreational, economic potential and environmental values of the coast. Ensure that natural coastal defences including sand dunes, beaches and coastal wetlands are not compromised by inappropriate development. Conserve the character, quality and distinctiveness of seascapes.

Objective NHB 11 – Trees, Parkland/Woodland, Stone Walls and Hedgerows

a) Protect important trees, tree clusters and hedgerows within the county and ensure that development proposals take cognisance of significant trees/tree stands. Ensure that all planting schemes use suitable native variety of trees, of Irish provenance.

b) Seek to retain natural boundaries, including stone walls, hedgerows and tree boundaries, wherever possible and replace with a boundary type similar to the existing boundary where removal is unavoidable. Discourage the felling of mature trees to facilitate development and encourage tree surgery rather than felling where possible. All works to be carried out in accordance with the provisions of the Forestry Act, 1946.

Objective NHB12 - Soil/Ground Water Protection

Developments shall ensure that adequate soil protection measures are undertaken, where appropriate, including investigations into the nature and extent of any soil/groundwater contamination.

Objective NHB13 - NPWS & Integrated Management Plans

Galway County Council shall seek to engage with and support the National Parks & Wildlife Service to ensure Integrated Management Plans are prepared for all Natura 2000 sites and ensure that that such plans are fully integrated with all land use and water management plans in the county, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to local communities.

Chapter 10 - Cultural, Social and Community Development

Section 10.10 Recreation & Amenity Policies & Objectives

Policy RA 2 – Protection of sensitive areas

Protect the amenity of scenic and environmentally sensitive areas and promote the knowledge and appreciation of the natural amenities of the County.

Chapter 11 - Agriculture, Fishing, Marine Resources and Forestry

Section 11.6 Agricultural Policies and Objectives

Objective AFF 5 - Compliance with the EU Habitats Directive

New agricultural projects that may potentially affect Natura 2000 Sites, individually or in combination with other plans and projects shall be subject to Appropriate Assessment to ensure that there are no likely significant effects on the integrity of any Natura 2000 Sites in the County.

Objective AFF 6 – Drainage or Reclamation of Wetlands

The Council will implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such planning applications would need to be supported by an Appropriate Assessment where necessary.

Section 11.7 Fishing & Marine Resource Policies and Objectives

Policy AFF 7 – Integrated Approach

The Council shall promote County Galway as a coastal County and shall seek to increase our awareness of the value, opportunities and social benefits of the sea. Galway County Council shall also support an integrated or ecosystem approach as outlined within the document '*An Integrated Marine Plan for Ireland Harnessing our Ocean's Wealth 2012*' regarding future maritime development proposals in ensuring that ecological limits are respected and that development will not have significant adverse effects on the environment both on land and sea.

Objective AFF 11 – Development of Offshore Resources

Galway County Council shall promote and support the development of sustainable off-shore resources such as offshore energy generating Sites subject to the provisions of EU Directives including the *Habitats Directive and Shellfish Directive*.

Section 11.9 Forestry policies and objectives

Objective AFF18– Sustainable Afforestation

Facilitate afforestation in appropriate locations, in co-operation with Coillte and the Forest Service and in line with EU environmental and national legislation and policy.

4.3 Water Protection Measures

Section 3.2 of this assessment identified that impacts on water quality within European Sites have potential to arise through abstraction of drinking water and point source discharges of wastewater. Where necessary, Galway County Council has made applications to the Environment 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 Regulations requirements 2001 – 2004 (paying particular emphasis to Phosphorous due to the Natura 2000 Sites' sensitivity), and should furthermore comply with all wastewater discharge authorisation requirements as per 2007 Regulations and Urban Wastewater Regulations 2001.

The following objectives and policies within the County Galway Development Plan relating to the protection of surface and ground water resources within the County will act to protect the Natura 2000 network:

Chapter 6 - Water & Wastewater Infrastructure &, Waste Management & Extractive Industry

Section 6.10 Water Policies and Objectives

Policy WS 5 - Water Quality

Promote public awareness of water quality issues and the measures required to protect all waters including all surface water and groundwater bodies.

Objective WS 1 – Protection of Ground Waters

Support the protection of groundwater resources and dependent wildlife/habitats in accordance with the Groundwater Directive 2006/118/EC, the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) or any updated legislation and the Groundwater Protection Scheme and source protection plans for water supplies.

Objective WS 2 – EU Policies and Directives

Protect, conserve and enhance all existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), the EU Bathing Water Directive (Directive 2006/7/EC) implemented by the Bathing Water Quality Regulations 2008 (S.I. No. 79) of 2008 and implement the European Communities (Drinking Water) Regulations (No. 2) 2007 and ensure that water supplies comply with the parameters in these regulations.

Objective WS 9 – River Basin Management Plans 2009 - 2015

Support the implementation of the relevant recommendations and measures as outlined in the Shannon International & Western River Basin Management Plans 2009 – 2015, and associated Programmes of Measures, or any such plans that may supersede same during the lifetime of this County Development Plan. Development shall only be permitted where it can be clearly demonstrated that the proposal would not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated wetlands, estuarine waters and coastal waters. Cognisance shall be taken where relevant of the EU's Common Implementation Strategy Guidance Document No. 20 which provides guidance on exemptions to the environmental objectives of the Water Framework Directive.

Objective WS 11 – Regionally & Locally Important Aquifers

Protect the regionally and locally important aquifers within the County from risk of pollution and ensure the satisfactory implementation of the groundwater protection schemes and groundwater source protection zones, where data has been made available by the Geological Survey of Ireland.

Objective WS 13 – Private Water Supply

It is an objective of the Council that where there is no public water supply the existing supply does not have sufficient capacity, or where the property owner wishes not to consume the water from the public supply, then the provision of a private water supply will be permitted, only where it can be demonstrated that the proposed water supply meets the standards set out in the EU and national legislation and guidance including adherence to *Article 6 of the EU Habitats Directive*, and would not

be prejudicial to public health or would not significantly impact negatively on the source or yield of an existing supply.

Section 6.17 Wastewater Policies and Objectives

Objective WW 1 - EU Policies and Directives

Ensure that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance and subject to compliance with the provisions and objectives of the EU Water Framework Directive, relevant River Basin Management Plans, Urban Waste Water Directive and the EU Habitats Directive.

Objective WW 5 – Waste Water Treatment Associated with Development in Un-Serviced Areas

Permit development in un-serviced areas only where it is demonstrated to the satisfaction of the Planning Authority that the proposed wastewater treatment system is in accordance with the Code of Practice Treatment and Disposal systems serving Single House EPA (2009)/ EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (1999) (or any superseding documents) and subject to complying with the provisions and objectives of the EU Water Framework Directive.

Objective WW 6 – Adherence to Environmental Standards

Promote the provision of safe and secure wastewater infrastructure to ensure that the public is protected and that permitted development, is within the environmental carrying capacity and does not negatively impact on habitat quality or species diversity.

Objective WW 7 – Surface Water Drainage & Sustainable Drainage Systems (SuDS)

Maintain and enhance, as appropriate, existing surface water drainage systems in the County, ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in all new developments.

Objective WW 8 – Substandard Wastewater Treatment Plants

Support and facilitate as appropriate the upgrading of substandard public wastewater treatment plants in order to comply with the provisions of the Urban Waste Water Treatment Regulations 2001 and 2004, the Waste Water Discharge (Authorisation) Regulations 2007 and implement the relevant recommendations set out in the EPA document *Focus on Urban Waste Water Discharges in Ireland* (and any subsequent update).

Section 6.21 Mineral Extraction and Quarry Policies and Objectives

Objective EQ1 – Protection of Natural Assets

Protect areas of geo-morphological interest, groundwater and important aquifers, important archaeological features, Natural Heritage Areas and European Sites from inappropriate development.

Chapter 8 - Climate Change & Flooding

Section 8.8 Flood Risk Management Policies and Objectives

Objective FL 3 - Protection of Waterbodies and Watercourses

Protect waterbodies and watercourses within the County from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include protection buffers in riverine, wetland and coastal areas as appropriate.

Chapter 9 - Heritage, Landscape and Environmental Management

Section 9.9 Natural Heritage & Biodiversity Policies & Objectives

Policy NHB 4 – Water Resources

Protect, conserve and enhance the water resources of the county, including, rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species and seek to protect and conserve the quality, character and features of inland waterways by controlling developments close to navigable and non-navigable waterways.

Objective NHB 3 – Water Resources

Protect the water resources in the Plan Area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU *Water Framework Directive 2000 (2000/60/EC)*, the *European Union (Water Policy) Regulations 2003* (as amended), the *Western River Basin District Management Plan 2009-2015*, *Shannon International River Basin Management Plan 2009-2015* and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans.

Objective NHB 10 – Protection of the Coastal Zone

Protect the amenity, character, visual, recreational, economic potential and environmental values of the coast. Ensure that natural coastal defences including sand dunes, beaches and coastal wetlands are not compromised by inappropriate development. Conserve the character, quality and distinctiveness of seascapes.

Chapter 11 - Agriculture, Fishing, Marine Resources and Forestry

Section 11.7 - Fishing & Marine Resource Policies and Objectives

Objective AFF 7 – Commercial Sea Fishing

Galway County Council shall encourage and facilitate the sustainable development and expansion of the fishing industry while providing for the management and conservation of coastal habitats and ecosystems.

Section 5 Conclusion

Stage 1 Screening and Stage 2 Appropriate Assessment of the County Galway Development Plan 2015 - 2021 have been carried out. Implementation of the Plan has the potential to result in impacts to the integrity of the Natura 2000 network, if unmitigated.

The risks to the safeguarding and integrity of the qualifying features and conservation objectives of the Natura 2000 Network have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of impacts in the first place and mitigate impacts where these cannot be avoided. In addition, all lower level plans and projects arising through the implementation of the Plan will themselves be subject to Appropriate Assessment when further details of design and location are known.

Having incorporated mitigation measures, it is considered that the Plan will not have a significant effect on the integrity of the Natura 2000 Network⁶.

⁶ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- (a) no alternative solution available;
- (b) imperative reasons of overriding public interest for the plan to proceed; and
- (c) adequate compensatory measures in place.