

**Appropriate Assessment
of the
Portumna Local Area Plan 2016-2022
(Draft)
Natura Impact Report**

On behalf of Galway County Council



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APPENDIX 1 – AA SCREENING REPORT

1. Introduction

1.1. General Introduction

This report contains information required for the competent authority, in this case Galway County Council, to complete an Appropriate Assessment (AA) process on the effects of the adoption of the Portumna Local Area Plan 2016-2022.

The report assesses the potential for the Plan to impact on sites of European-scale ecological importance. It is necessary that the Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Birds and Natural Habitats Regulations).

1.2. Legislative Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/EEC as amended 2009/147/EC), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an 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.”

Article 6(4): “If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of

the 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 the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

2. Stages of the AA Process

The Commission’s methodological guidance (EC, 2002) promotes a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 Appropriate Assessment: In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

In order to ensure that the Plan complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group carried out the screening stage of the Plan on behalf of Galway County Council to determine if Stage 2 AA is required.

2.1. Guidance

The AA has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- 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 Directorate-General, 2001); hereafter referred to as the EC Article Guidance Document.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat’s Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.

2.2. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth and Bing aerial photography.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopsis; Qualifying Interests and Conservation Objective data,
 - Online database of rare, threatened and protected species,
 - Publicly accessible biodiversity datasets.
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2013).
- Biodiversity Data for County Galway including that collated in the Biodiversity Action Plan for County Galway 2008 – 2013
- Port Omna Beo: Nature & Wildlife Plan 2013-2016
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2013)
- Galway County Development Plan 2009-2015
- GCDP AA Screening Report & Natura Impact Report 2014
- Portumna Local Area Plan (2016) Issues Leaflet

2.3. Consultation

Galway County Council has notified the Department of Arts, Heritage and the Gaeltacht (DAHG) of their intention to commence the preparation of a new Local Area Plan for Portumna through the Strategic Issues Paper for the Local Area Plan. The Development Applications Unit was consulted as part of this process and comments received with regard to AA are outlined below.

Ref. FP2015/044

The submission reiterates that the plan must contain objectives for the conservation and protection of the environment. The wording of objectives in the natural heritage section of the plan should reflect or encompass key obligations and requirements as set out in the relevant legislation in relation to the various ecological corridors or natural heritage features.

The Planning Authority is reminded that legislation in Ireland has changed since the last plan was adopted and cognizance should be taken in the context of European sites or Natura 2000 network.

There is suggested wording that should be incorporated into the plan in relation to the text and objectives of the plan in relation to the European sites.

In relation to the NIR and the plan it is suggested that in some limited cases that policies and objectives that contain further projects or lower level plans will be subject to appropriate assessment at a later stage. In other instances development objectives maybe such that potential impact on European Sites cannot be avoided, the impacts on European Sites must be assessed at plan level in the NIR. In addition it must be demonstrated how any mitigation measures, which are specified at plan level, will ensure that no adverse effects on site integrity will result.

It is suggested that the Department is of the view that there is potential for the plan, or services or resources on which the plan area is reliant to have significant effects on European sites in view of the conservation objectives. All potential impacts in relation to development or increased usage or pressures need to be examined and assessed at plan level prior to their inclusion in the plan.

It is stated that the implications of all parts of the plan, including zoning and land use designations and associated maps, strategies or other reports must be examined on their own and in combination with the plan and with other plans and projects. Only those plan elements that are demonstrated to be compliant with the Habitats Directive and Birds Directive should be incorporated into the plan.

It is stated that one of the key benefits of the environmental assessment procedures is that they should influence and inform the plan during its preparation, and integrate ecological and other environmental considerations with the vision, policies and objectives for the future development and growth of the plan area.

The implications of the plan for European sites in view of their conservation objectives must be assessed.

The NIR is the resulting statement of the effects for the purposes of Article 6 of the Habitats Directive and its findings must be taken into account when the appropriate assessment is carried out and a determination is made as to whether or not the land use plan would adversely affect the integrity of a European Site.

It is stated that the appropriate assessment cannot have a lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of a project on a European Site, it is stated that these standards should underpin the NIR.

The appropriate assessment must be carried out prior to the adoption of the plan.

The Department has included 13 points in relation to the preparation of a NIR and what information should be included, the following is a brief summary of this information:

- The need for an NIR follows on from screening. The NIR should not contain the screening exercise;
- The NIR should be a scientific assessment that presents relevant evidence, data and analysis and not just commentary, lists and tables.;
- The best scientific knowledge and objective information which are specified in legislation in relation to screening are also required in the preparation of the NIR;
- The relevant environmental baseline and trends should be taken into account, bearing in mind changes and in combination effects which have occurred since site designations;
- If a NIR is required, it should cover the entire plan, not just parts of the plan;
- The NIR should focus on the likely significant effects of the plan, on its own and in combination with other plans and projects, on European sites in view of their conservation objectives, whether these are generic or site specific;
- An examination of the potential or existing effects of the plan, and the resources and services, on which it is reliant, must be undertaken to identify what European sites, and which of their conservation objectives are potentially at risk. In combination effects of other plans or projects must also

be taken into account. This examination is also required to determine a “zone of influence” or “zone of impact” of the plan area. It is noted that a 15km distance for plans in existing guidance is an indicative figure and its application and validity should be examined and justified in each specific case with reference to the nature, size and location of plan area, and the sensitivities of the ecological receptors, and the potential for in combination effects;

- The scientific basis on which site and conservation objectives are included or excluded from assessment and analysis should be presented;
- The scientific basis on which plan policies and objectives and other plan elements are included or excluded from further assessment and analysis should be presented. It is suggested that this should be applied to all parts of the plan and all policies and objectives;
- Where the plan level mitigation measures are put forward the necessary analysis should be presented to demonstrate that these will be effective in avoiding or removing risks of adverse effects on the integrity of European sites, or in managing future proposals where adverse effects maybe unavoidable;
- The NIR and plan level mitigation measures should go beyond altering the wording of objectives to say that future assessment is required;
- All parts of the plan, including zoning and land use zoning designations and associated maps and strategies, should be subject to assessment and should be compliant with the Habitats Directive. In the case of non-statutory strategies or other reports, these may only be incorporated into the plan , or given effect by the plan, if demonstrated to be compliant with Article 6 on their own and in combination with the plan itself and with other plans and projects;
- The NIR should reach a clear and precise conclusion as to the implications of the plan for the conservation objectives of the relevant European sites.

3. Stage 1 – Screening for Appropriate Assessment

A Stage 1 Screening Assessment was undertaken for the Portumna Local Area Plan and the Screening Report is attached as Appendix 1 to this report.

The finding of the Screening Assessment are reiterated here:

The Screening process has identified that four of the Natura 2000 sites assessed have the potential to be adversely affected by the implementation of the proposed Portumna Local Area Plan 2016-2022.

The Screening Assessment has identified that there may be potential impacts as a result of the implementation of the Plan on three sites listed below and that Stage 2 AA is required to assess the potential impacts of the Plan in detail on these sites:

- River Shannon Callows SAC
- Lough Derg, North-East Shore SAC
- Lough Derg (Shannon) SPA
- Middle Shannon Callows SPA

4. Stage 2 – Appropriate Assessment

4.1. Assessment Methodology

The assessment of impacts on the Natura 2000 network of sites was undertaken by the following steps:

1. Establishing site-specific issues so that the impact evaluation is correctly informed.
 - This was primarily achieved through research of desktop information including the Galway County Development Plan, Portumna LAP SEA Report and consultation with the Development Applications Unit.
2. Issuing a Draft Natura Impact Report for Galway County Council to pro-actively inform the preparation of Policies and Objectives.
 - The Draft NIR contained a summary of the Screening Exercise and recommendations of policies to promote and avoid during the preparation of the Draft Local Area Plan.
3. Iterative review of draft chapters of the Draft Local Area Plan to allow the amendment of Policies, Objectives and supporting text. By doing so, potential impacts were avoided or mitigated through the addition of additional Policies and Objectives.

4.2. Description of the Plan

4.2.1. General Description

The Portumna Local Area Plan (LAP) 2016-2022 has been prepared by Galway County Council (GCC) to provide a statutory framework for the future growth and development of Portumna. It is consistent with the policies and objectives contained in the Galway County Development Plan, including the Core Strategy, and seeks to address the needs and requirements of the local community, service providers and other stakeholders. The purpose of the Local Area Plan is to guide future development within the town in a sustainable and equitable manner and to inform members of the public, the local community, stakeholders and developers, of the policies and objectives that will shape the development of the town over the next six years. The policies and objectives for the development of the town include provisions in relation to land use management, community facilities, amenities, transport, infrastructure, urban design, cultural/built heritage, natural heritage and the environment.

The plan period is for 6 years, from the date of adoption by Galway County Council, unless the timeframe is extended by resolution in accordance with Section 12(d) to (f) of the Planning and Development (Amendment) Act 2010. The plan area is comprised of the town and its immediate environs and is considered to provide an appropriate development envelope for the anticipated growth of the town for the plan period. (Figure 3.1).

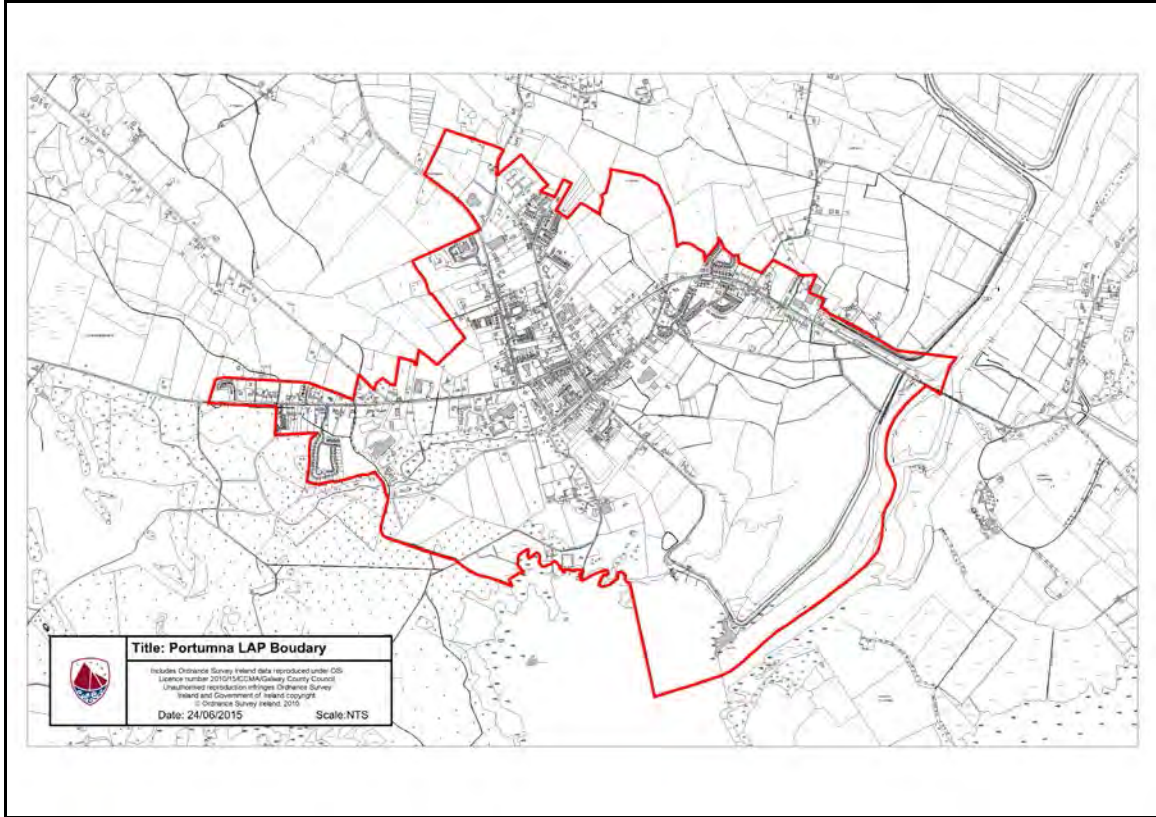


Figure 3.1 Plan area boundary at Portumna, County Galway (source GCC).

4.2.2. Structure & Content

The Local Area Plan has been structured into 4 main sections with separate supporting documents:

Section 1	<p>Introduction</p> <ul style="list-style-type: none"> • Preamble • Profile of Portumna • Local Area Plan • Plan Informants and Key Considerations.
Section 2	<p>Strategic Vision and Development Strategy</p> <ul style="list-style-type: none"> • Strategic Vision • Development Strategy
Section 3	<p>Development Policies, Objectives and Guidelines</p> <ul style="list-style-type: none"> • Land Use Management • Residential Development • Social and Community Development • Economic Development • Tourism • Transportation Infrastructure • Utilities, Climate Change & Environmental Management • Urban Design and Landscape

	<ul style="list-style-type: none"> • Built Heritage and Cultural Heritage • Natural Heritage & Biodiversity
Section 4	<p>Local Area Plan Maps</p> <ul style="list-style-type: none"> • Map 1A & 1B – Land Use Zoning • Map 2A & 2B – Specific Objectives • Map 3A & 3B – Flood Risk Management

Supporting documents include the Appropriate Assessment Screening Report, the Strategic Environmental Assessment Report and the Strategic Flood Risk Assessment for Portumna which are all available separate to the plan.

4.2.3. Strategic Vision

The Local Area Plan is underpinned by a strategic vision intended to guide the future growth and development of Portumna in a sustainable manner, achieving the overall objectives set out for the town in the current Galway County Development Plan and in a way that reflects the existing character and amenity of the area, the surrounding landscape, heritage, environment and improves the quality of life of residents and the local community.

The strategic vision is informed by guiding principles enabling the overall vision to be achieved, these include the following:

- Realising the town’s potential as one of the ‘Key Towns’ as set out in the Galway County Development Plan and attracting the population target established in the Core Strategy up to 2021 and beyond.
- Acknowledging that the medium term growth of Portumna should focus on new sustainable communities and adopt a sequential approach to the zoning of residential lands extending outwards from the centre of the town in line with the Guidelines for Planning Authorities – Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009).
- Reflecting the needs and aspirations of local communities, business and other interested and affected groups, as expressed through the public consultation process.
- Promoting sustainable land use and transport by capitalising on the opportunity presented by the potential to develop walking and cycling opportunities within the town focused around the forest and the river, so that sustainable travel such as walking, cycling and other smarter travel initiatives, along with integrated land use and transportation become central to the development of new neighbourhoods and the future development of Portumna.
- Maintaining and promoting a strong and vibrant town centre which sustains the ability to attract new businesses and meets the retailing and service needs of the town and its surrounding hinterland, in addition to offering a pleasant and attractive environment for shopping, business, tourism, recreation and living.
- Ensuring that there are a range of facilities, amenities and supporting services including educational, recreational, religious, social, community and civic requirements for children, youths, adults and the elderly, to serve a growing community.
- Optimising the potential of the town’s strategic location, in close proximity to the River Shannon and as a service hub to an extensive rural hinterland, through facilitating and fostering appropriate tourism and economic development, through setting a positive and flexible framework, which enhances Portumna as a place for tourism and employment opportunities.

4.2.4. Development Strategy

In order to achieve the strategic vision for Portumna, it is important to examine a number of Development Strategy Options to ascertain which option can deliver most effectively on the vision for the town.

Continuing on with the previous plan is not considered an appropriate approach as it would not take account of advances in planning guidance, best practice or recent changes to legislation or E.U. Directives. Such an approach would also conflict with the Regional Planning Guidelines and the Core Strategy of the Galway County Development Plan and therefore would not be in accordance with the proper planning and sustainable development of the town.

After an assessment of the development options presented, Option 3 was considered the preferred Development Option.

This option includes a refined plan boundary, providing a more appropriate development envelope and greater certainty to the future growth of the town, including rationalised land use zonings to align with the Core Strategy. It also takes account of the infrastructural capacity within the town, with particular regard to water and wastewater availability and takes cognisance of flood risk areas.

This approach supports the consolidation of development within the plan area, supports sequential development of the remainder of the urban core from the centre outwards and ensures that serviced, residential lands close to the town centre are the primary focus for development in the short to medium term. This in turn will encourage reduced travel demands, more sustainable transport options and ease of access to community facilities, employment resources and retail and service provision within the town.

4.2.5. Land Use Management

It is the policy of Galway County Council to provide a land use zoning framework for the plan area to direct the type, density and location of development in a manner that contributes to the consolidation of the town centre, that allows for the orderly and sequential development of the town, that protects and enhances the existing landscape setting, character and unique identity of the town and that complies with the statutory requirements in the Planning and Development Act 2000 (as amended). The land use zoning framework is supported by a residential phasing framework to ensure compliance with the Core Strategy and to promote the orderly and sequential development of the town.

4.2.6. Residential Development

It is the policy of Galway County Council to support the creation of sustainable communities and high quality residential areas at appropriate locations with a range of housing options and adequate support services, facilities and amenities, having regard to the guidance contained in the listed policy documents.

4.2.7. Social and Community Development

Social inclusion refers to a series of positive actions to achieve equality of access to services and goods, to assist all individuals to participate in their community and society, to encourage the contribution of all persons to social and cultural life and to be aware of and to challenge all forms of discrimination. Social inclusion seeks the creation of an inclusive and fair society, combating inequality, social exclusion and poverty. The quality of life in a community depends not only on the provision of housing, employment and infrastructure support but also on access to social,

community and cultural facilities which are fundamental to social cohesion and personal enhancement. The social infrastructure of Portumna consists of a diverse range of social clubs/groups, sports clubs and community facilities that cater for both young and old. Social groups include the 79 bridge club, Portumna Players Drama Group, Na Calai Community Development Project, An Gairdin Environmental Group, Portumna Town FC, Portumna GAA, Portumna Rugby Football Club and Portumna Golf Club, to list but a few.

Portumna has number of community facilities which are important amenities to the area such as the children's playground, library, schools, church and graveyard, medical facilities, Garda station, bank, post office and a number of sporting facilities. A growing population, such as that in Portumna, generates increased demand for the provision of services and it is desirable that these essential facilities are provided in tandem with new development and as new communities emerge. In this regard, Galway County Council's role is to ensure the adequate provision of appropriately zoned areas, to meet future demands for community facilities within the plan area, while providing a framework for the development of such uses through the policies and objectives contained within the Local Area Plan

4.2.8. Economic Development

In the current Galway County Development Plan, Portumna is identified as one of the 'Key Towns/Other Towns' in the settlement hierarchy. Furthermore, due to its distance from Galway City there is a requirement for it to be self sufficient to an extent whereby a large proportion of the population, living in the town or surrounding area, are able to live, work, shop, go to school and enjoy recreation without the need for constant travel. The Local Area Plan recognises and supports this role and the potential of Portumna. The plan provides a land use framework along with policies and objectives to promote the development of a range of retail, commercial, industrial, enterprise and tourism activities, so as to encourage and sustain a diversity of employment opportunities within the confines of the town.

4.2.9. Tourism

Tourism is an important industry in the local economy and it is acknowledged as a catalyst for a considerable amount of commercial activity in the town. Portumna has a significant number of tourist attractions focused around its picturesque location beside the River Shannon and adjacent to Portumna Forest Park. The town subsequently has a rich natural and built heritage by virtue of its advantageous geographical setting. These characteristics and amenities simultaneously act as valuable recreational assets for the town and greatly enhance its overall appeal.

4.2.10. Transportation Infrastructure

The Portumna Local Area Plan 2016 recognises and supports the importance of sustainable transport, including the effective integration of land use and transport and encouraging a modal shift from private transport to public transport, walking and cycling. The plan has had due regard to applicable national legislation and policy, including Smarter Travel: A New Transport Policy for Ireland 2009-2020, Spatial Planning and National Roads Guidelines for Planning Authorities (2012), the Traffic Management Guidelines (2003) and the Design Manual for Urban Roads and Streets (2013). The new manual aims to end the practice of designing streets as traffic corridors, and instead focuses on the needs of pedestrians, cyclists and public transport users.

4.2.11. Utilities Climate Change & Environmental Management

The sustainable growth of Portumna is dependent on the satisfactory provision of service infrastructure, including utilities, energy and communication networks. This infrastructure requires the need to plan for all these elements so as to ensure that there is adequate availability to

support future development, in a manner that is environmentally appropriate, cost effective, efficient and protects public health.

Water Framework Directive

In accordance with the requirement of the Water Framework Directive, there is a Water Framework Directive Register of Protected Areas which consists of an inventory of protected area sites representing area categories to include waters used for the abstraction of drinking water, areas designated to protect economically significant aquatic species, recreational waters, nutrient sensitive areas, and areas designated for the protection of habitat and species.

The European Communities (Drinking Water) (No.2) Regulations 2007 (S.I. No.278 of 2007) transpose outstanding aspects of the EU Drinking Water Directive into Irish law by underpinning comprehensive supervision and maintenance regimes for both sanitary authority and group water scheme supplies and by providing for increased penalties for non-compliance. Achieving and improving appropriate water quality standards for the village are of significant importance to Galway County Council.

Irish Water is now responsible for the operation of public water and wastewater services and provision of these services across Ireland. For decades, Local Authorities have provided water and wastewater services within the resources available to them. In order to maintain continuity of service, Irish Water has entered into Service Level Agreements (SLA) with Galway County Council for the operation of Irish Water's assets for the next twelve years. Irish Water's Capital Investment Plan 2014-2016 outlines the indicative investment priorities in water services infrastructure over the coming years. The Capital Investment Plan consists of a targeted programme consisting of individual projects and a range of sub-programmes, which will deliver improvements in drinking water quality, leakage, wastewater compliance, business efficiencies and customer service. Irish Water has also commenced work on a 25 Year Water Services Strategic Plan which will set out its long term strategy and objectives. The Capital Investment Plan will be adjusted as required to meet the objectives and priorities of the Water Service Strategic Plan as adopted following assessment.

Water Supply

Portumna town and surrounding rural area receives its water supply from Lough Derg. The abstracted water is treated prior to consumption at the local treatment plant through processes of coagulation, filtration, chlorination and fluoridation. The existing water treatment plant has limited capacity and requires upgrading to meet demand levels into the future. These works will necessitate the upgrading of the inlet pipe and additional final water storage provision at the plant.

Wastewater Disposal

Portumna Wastewater Treatment Plant receives foul & combined flows from an extensive sewer network which collects discharges from the urban town area. There are a number of pumping stations located throughout the town of Portumna which assist in delivering these flows to the Wastewater Plant for treatment. It is envisaged that some upgrading works to the treatment process and the network will be required to meet future demands of the area.

Surface Water Drainage

In the period 1999 to 2001, as part of wider works associated with the Portumna Sewerage Scheme, sections of the storm water system were upgraded by way of separating surface waters from the foul sewerage system. An excessive quantity of storm water continues to be received at the treatment plant and therefore additional augmentation works are necessary in this regard. The provision of a storm water sewer outwards along the R352 and the Bridge Road will ameliorate the situation.

The Local Area Plan will facilitate the upgrading of surface water infrastructure where necessary and promote the use of Sustainable Urban Drainage Systems (SuDS) in developments, such as

permeable surfaces, retention ponds and rainwater harvesting, so as to restrict surface water runoff in new developments to green field levels and to minimise flood risks and potential impacts. Proposals for SuDs shall be in accordance with the recommendations as contained within the EPA document entitled 'Guidance on Authorisation of Discharges to Groundwater 2011' (or any updated version of this document).

Water Quality

The E.U. Water Framework Directive 2000/60/EC requires member states to ensure that all their waters (including surface and groundwater) achieve at least 'good status' by 2015 and to ensure that the current status does not deteriorate in any waters. In accordance with the requirement of the Water Framework Directive, there is a Water Framework Directive Register of Protected Areas which consists of an inventory of protected area sites representing area categories to include waters used for the abstraction of drinking water, areas designated to protect economically significant aquatic species, recreational waters, nutrient sensitive areas and areas designated for the protection of habitat and species. Portumna is located in the Lough Derg Water Management Unit in the Shannon International River Basin District and the Shannon International River Basin Management Plan 2009-2015 recognises the need to integrate water protection measures with land use planning at regional and local level, as responsibility for taking measures within the plan lies with all public bodies whose activities impact on water quality or who regulate such activities.

The Lough Derg Water Management Unit Action Plan states that 42% of the rivers have good status with the remainder being a mixture of high, moderate or poor status. Furthermore, 83% of the lakes within this Water Management Unit are of moderate status, with the remainder being of good status.

The Plan Area is predominantly underlain with dark limestone and shale with the western area underlain by muddy limestone and calcareous shale. The aquifer in the area is locally important which is moderately productive in local zones. The GSI Groundwater Protection Scheme identifies the majority of the plan area as having a groundwater vulnerability rating of high and medium with pockets of extreme and bedrock at surface. It is essential that groundwater is sufficiently protected in line with the Groundwater Directive & the Water Framework Directive.

Climate Change

Climate change refers to changes in climatic conditions whether through natural variations or as a result of anthropogenic influences. The impacts of climate change present very serious global risks and threaten the basic components of life, including health, access to water, food production and the use of land. Climate change also poses threats in terms of likelihood and severity of flooding and impacts on water resources, biodiversity, natural habitats and species distribution.

Flood Risk Management and Assessment

The Department of the Environment Heritage and Local Government and the Office of Public Works (OPW) published national flood risk management guidelines in 2009 entitled The Planning System and Flood Risk Management: Guidelines for Planning Authorities 2009. These Guidelines require Planning Authorities to ensure that, where relevant, flood risk is a key consideration in preparing development plans, local area plans and the assessment of planning applications. The aim of the Guidelines is to avoid flood risk where possible, substitute less vulnerable uses when avoidance is not possible and mitigate and manage the risk where avoidance and substitution are not possible.

Waste Management

The Connaught Waste Management Plan provides policy guidance on waste management in County Galway. Best practice in terms of waste management recommends that as much waste as possible is dealt with through reduction, reuse and recycling, with as little as possible remaining to be disposed of and this approach will be supported through the Local Area Plan. Galway County Council promotes environmental awareness measures, initiatives and campaigns

in the local community through involvement with various groups and organisations and through the implementation of the Green Schools programme - an international programme designed to encourage and acknowledge whole school action for the environment.

Telecommunications & Energy Infrastructure

Developments require adequate power, energy and telecommunications services, including electricity, gas supply, telephone services and broadband, which are provided in Portumna by a number of different service providers. The plan aims to seek a balance between the need to maintain and develop energy and telecommunications infrastructure while having regard to amenities, protected areas and sensitive landscapes. Galway County Council will continue to implement the Council's Energy Action Plan regarding energy efficiency and conservation in existing and future residential, commercial and industrial buildings within Portumna.

4.2.12. Urban Design and Landscape

Urban design refers to the theory and practice of creating urban places and involves buildings but focuses particularly on the spaces between buildings, including the streets, frontages, civic spaces and overall place-making, such as building types and arrangements, urban block types and patterns, mix of uses and activities, etc. Successful urban design is essential in the creation of attractive and sustainable living and working environments and the establishment of a unique identity and sense of place for the town.

It is important to protect the distinctive character of the town and to enhance the quality of the built environment so as to enable people to continue living in attractive and safe surroundings, and to ensure a similar standard for future generations. This can be achieved through promoting new development, places and spaces that are of high quality, which promote sustainable lifestyles, are appropriately scaled, are responsive to their contextual surroundings, amenity, heritage, environment and landscape of the town and contribute to the future potential of the area.

4.2.13. Built Heritage & Cultural Heritage

The built and cultural heritage within Portumna contributes to the character and local distinctiveness of the area. The built heritage includes both architectural and archaeological heritage and Portumna has a number of significant elements of both, that form part of the history and character of the town.

4.2.14. Natural Heritage & Biodiversity

Natural heritage includes the variety of life we see around us every day and also includes the landscape and its geological foundation. The variety of life is often referred to as biological diversity or biodiversity. Biodiversity is a word used to describe the natural world that includes people, animals, plants, microbes as well as the places they live which are called habitats. Natural heritage includes a wide range of natural features and processes that make an essential contribution to the environmental quality, ecological biodiversity, landscape character, visual amenity, recreational activities, public health and investment potential of the town.

European Directives, Natura 2000 and Environmental Assessments

At European level, the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC) mandate the identification and protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which together create a network of protected wildlife areas, known as the Natura 2000 network, across the European Union. The designation of these sites forms part of a range of measures aimed at conserving important or threatened habitats and species. The Water framework Directive Register of Protected Areas as required under the Directive also

contains an inventory of protected area sites representing area categories to include areas designated for the protection of habitat and species.

There is a legal requirement that all land use plans comply with the Birds and Habitats Directives, in particular through the preparation of a Habitats Directive Assessment. The Strategic Environmental Assessment Directive (2001/42/EC) also requires that all land-use plans legally comply with the Strategic Environmental Assessment Directive, including the preparation of a Strategic Environmental Assessment, where necessary. Further details regarding the Strategic Environmental Assessment are available separately as supporting documents to the Plan. Portumna has a considerable amount of designated sites that traverse the Plan area. These include two Special Areas of Conservation, namely the River Shannon Callows SAC and Lough Derg, North – East Shore SAC. Furthermore, there are also two Special Protection Areas that traverse the plan area, namely the Middle Shannon Callows SPA and Lough Derg (Shannon) SPA.

Natural Heritage Areas and Associated Legislation

The national designation for wildlife is the Natural Heritage Area (NHA), and designated Natural Heritage Areas are protected under the Wildlife Acts 1976-2000. The Natural Heritage Areas cover nationally important semi-natural and natural habitats, landforms or geo-morphological features, wild plant and animal species or a diversity of these natural attributes. These areas are considered important for the habitats present or hold species of plants and animals whose habitat needs protection under national legislation. The proposed Shannon Callows Natural Heritage Area and the proposed Lough Derg Natural Heritage Area both traverse the plan area to the south.

Ecological Networks

Ecological networks are supported at EU level through the European Spatial Development Perspective and Natura 2000 and underpin the Pan-European Biological and Landscape Diversity Strategy, which has been ratified by Ireland. Inland and coastal waterways, which include lakes, rivers, and streams, are living systems of high local biodiversity value due to the habitats associated with them, and function as ecological corridors that connect related habitats/designated sites, enabling species to move between them. The canal and streams/rivers in the plan area perform an important ecological network function before draining into the aforementioned designated sites. Trees and hedgerows are also of high local biodiversity value and contribute to ecological connectivity. Features that contribute to the creation of an ecological network should be retained and included in the design plans for development proposals.

Green Infrastructure

Green infrastructure can be defined as networks of green areas that provide multiple environmental, social, educational and economic benefits to society and can include open spaces, woodlands, parks, farmland and private gardens. The environmental benefits of identifying a green infrastructure network cannot be underestimated as the protection of natural features like flood plains, wetlands, woodlands and hedgerows provide far - reaching benefits, e.g. in climate change adaptation. Developing a green infrastructure approach can assist with the loss of biodiversity while enhancing an environment in which we live and thereby creating a high quality environment. Comhar Sustainable Development Council publication (2010) "Creating Green Infrastructure for Ireland: Enhancing Natural Capital for Human Wellbeing" sets out how a network of green spaces can be developed to benefit natural heritage and biodiversity as well as the greater economy and society.

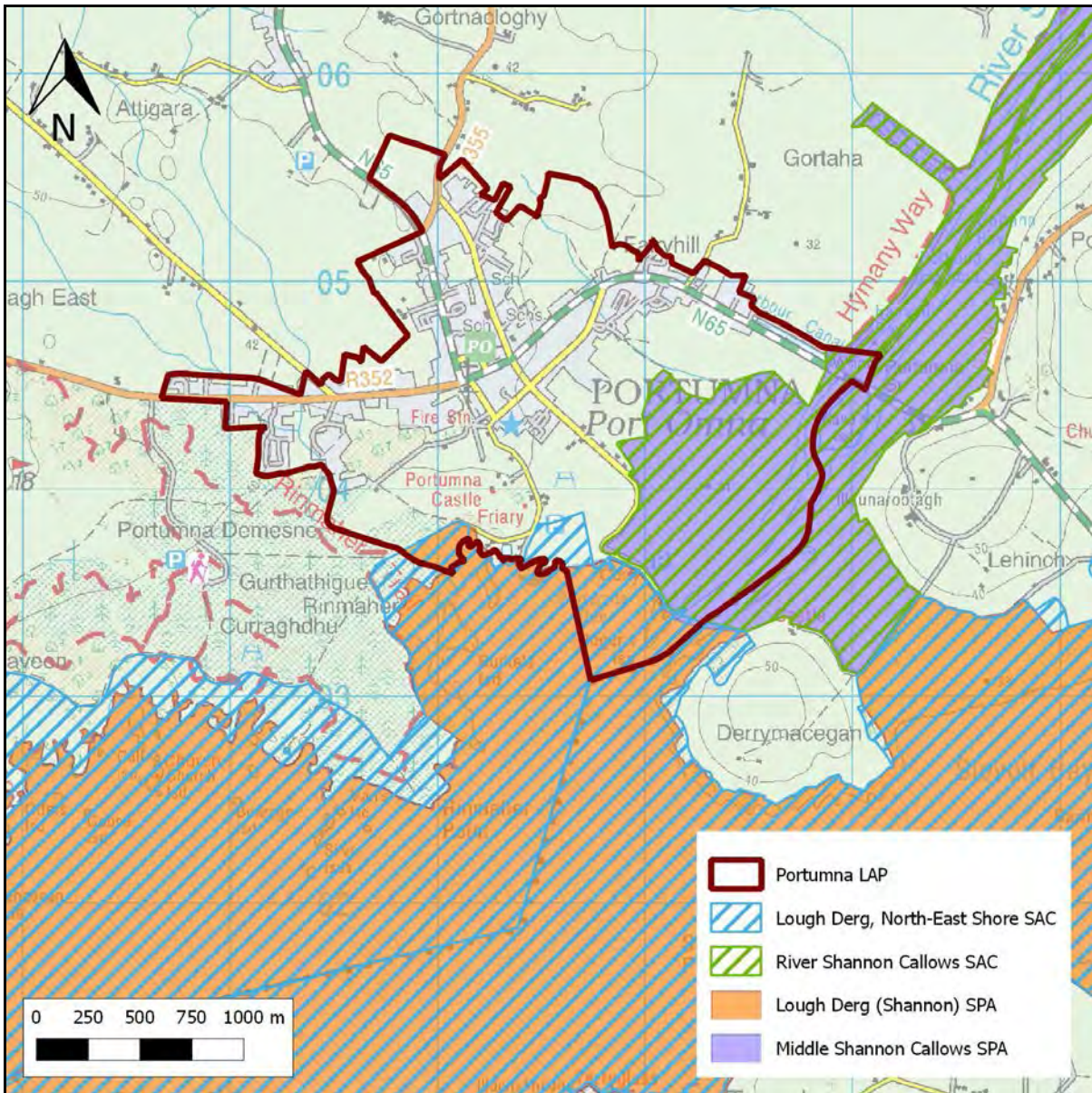
Invasive Alien Species

Non-native species both animal and plants can represent a major threat to local, regional and global biodiversity. Terrestrial and aquatic habitats can be negatively affected, resulting in significant damage to conservation and economic interests such as agriculture, forestry and civil infrastructure. The Third Schedule of European Communities (Birds & Natural Habitats) Regulations, 2011 lists restricted non-native species and Regulation No.49 and No. 50 specifically relate to recognised invasive species.

Development proposals must ensure that the presence or absence of invasive alien species has been addressed in accordance with the new European Regulations for the prevention and management of the introduction and spread of Invasive Alien Species (1st Jan 2015) and the EC (Birds and Habitats) Regulations 2011. Where invasive alien species are present on a development site an Invasive Alien Species Management Plan will be required.

4.3. Identification of European Sites & Conservation Objectives

The Screening stage of the AA process identified four European sites that could potentially be affected by the Portumna Local Area Plan. The Plan boundary is presented in Figure 4.1 below for reference only in terms of the geographical location of the Plan in relation to the immediate surrounding European sites.



The following is a detailed description of the European Sites potentially affected by the Portumna Local Area Plan.

4.3.1. Special Areas of Conservation

River Shannon Callows SAC (Site code 000216):

The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50 km long and averages about 0.75 km wide (reaching 1.5 km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from silty- alluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.

The River Shannon Callows is mainly composed of lowland wet grassland. Two habitats listed on Annex I of the E.U. Habitats Directive are well-represented within the site – *Molinia* meadows and lowland hay meadows. In places these two habitats grade into one another.

A further two Annex I habitats, both listed with priority status, have a minor though important presence within the site. Alluvial forest occurs on a series of alluvial islands just below the ESB weir near Meelick. Several of the islands are dominated by well-grown woodland consisting mainly of Ash (*Fraxinus excelsior*) and Willows (*Salix spp.*). Other habitats of smaller area but also of importance within the site are lowland dry grassland, drainage ditches, freshwater marshes and reedbeds. Good quality habitats on the edge of the callows included in the site are wet broadleaved semi-natural woodland and dry broadleaved woodland. There are also areas of raised bog, fen on old cut-away bog and a 'petrifying stream' with associated species-rich calcareous flush.

Two species which are legally protected under the Flora (Protection) Order, 1999, occur in the site - Opposite-leaved Pondweed (*Groenlandia densa*) in drainage ditches, and Meadow Barley (*Hordeum secalinum*) on dry alluvial grassland. The Red Data Book plant Green-winged Orchid is known from dry calcareous grasslands within the site, while the site also supports a healthy population of Marsh Pea (*Lathyrus palustris*).

The site is of international importance for wintering waterfowl and of particular note is an internationally important population of Whooper Swans. A further five species have populations of national importance. Small flocks of Greenland White-fronted Goose use the Shannon Callows; these are generally associated with larger flocks which occur on the adjacent Little Brosna Callows and River Suck Callows.

Shoveler (an estimated 12 pairs in 1987) and Black-tailed Godwit (Icelandic race) (one or two pairs in 1987) breed within this site. These species are listed in the Red Data Book as being threatened in Ireland. The scarce bird Quail is also known to breed within the area. The callows has at times held over 40% of the Irish population of the globally endangered Corncrake, although numbers have declined in recent years. The total population of breeding waders in 1987 was one of three major concentrations in Ireland and Britain. The population of breeding Redshank in the site was estimated to be 10% of the Irish population, making it nationally significant. Also, the Annex I species Merlin and Hen Harrier are regularly reported hunting over the callows during the breeding season and in autumn and winter.

This site holds a population of Otter, a species listed on Annex II of the E.U. Habitats Directive, while the Irish Hare, which is listed in the Irish Red Data Book, is a common sight on the callows.

The Shannon Callows are used for summer dry-stock grazing (mostly cattle, with some sheep and a few horses), and permanent hay meadow. About 30 ha is a nature reserve owned by voluntary conservation bodies. The River Shannon is used increasingly for recreational purposes with coarse angling and boating accounting for much of the visitor numbers. Intermittent and scattered damage to the habitats has occurred due to over-deepening of drains and peat silt deposition, water-skiing, ploughing and neglect of hay meadow (or reversion to pasture). However, none of these damaging activities can yet be said to be having a serious impact. Threats to the quality of the site may come from the siting of boating marinas in areas away from centres of population, fertilising of botanically-rich fields, the use of herbicides, reversion of hay meadow to pasture, neglect of pasture and hay meadow, disturbance of birds by boaters, anglers, birdwatchers and the general tourist. The maintenance of generally high water levels in winter and spring benefits all aspects of the flora and fauna, but in this regard, summer flooding is a threat to breeding birds, and may cause neglect of farming.

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site – *Molinia* meadows and lowland hay meadows with good examples of a further two Annex habitats (both with priority status). In winter the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)
6510	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)
8240	Limestone pavements*
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*

* denotes a priority habitat

Code	Common Name	Scientific Name
1355	Otter	<i>Lutra lutra</i>

Lough Derg, North-East Shore SAC (Site code 002241):

Lough Derg, the lowest order lake on the River Shannon, is one of the largest bodies of freshwater in Ireland. This SAC, however, only includes the northern shore of the lake from the mouth of the Cappagh River in the north-west to just below Black Lough at the north-eastern shore. The greater part of this site lies on Carboniferous limestone, although there is Old Red Sandstone on the southern shores of the eastern section.

The geology of the lake shore is principally limestone and in places this protrudes at the surface in the form of boulders and rubble, and can be classified as limestone pavement. These are often bryophyte-rich surfaces or else support a calcareous grassland or heath flora, as well as some woody species, such as Yew (*Taxus baccata*) and Juniper (*Juniperus communis*).

A second priority Annex I habitat, Cladium fen, occurs occasionally along the lake margins, mainly in association with alkaline fens, Common Reed (*Phragmites australis*) and other swamp vegetation.

A substantial area of Yew is located on limestone at Cornalack, where Yew forms a scrub woodland along the east shore of Lough Derg. Elsewhere, small stands of Yew occur. Juniper occurs throughout this site in a range of habitats, associated with calcareous grasslands, heath and limestone outcrops. Some of the finest examples of Juniper formations in Ireland occur along the lake edge where upright, bushy Juniper shrubs up to 3 m tall are found. Deciduous woodlands are also a notable feature of the site, dominated by oak (*Quercus spp.*), as at Bellevue, and Hazel/Ash at many of the examples along the north-eastern shore. Wet woodland is frequent along the lake shore, and in some areas this conforms well with the E.U. Annex I habitat, alluvial woodland.

The only known site in the country for the Red Data Book plant Irish Fleabane (*Inula salicina*) occurs along the lake shore. Other Red Data Book species present within this site are Marsh Pea (*Lathyrus palustris*) and Ivy Broomrape (*Orobanche hederae*). The Red Data Book stonewort *Chara tomentosa* has its stronghold in Lough Derg.

The lake is rated as nationally important for waterfowl. The entire lake, including all of the islands, is a designated SPA (Special Protection Area). The lake also supports a number of Greenland White-fronted Goose, a bird species listed on Annex I of the E.U. Birds Directive. There is a Wildlife Sanctuary at the north western edge of the lake.

Lough Derg is of conservation interest also for its fish and freshwater invertebrates. Lampreys, are known to occur and the lake contains an apparently self-sustaining landlocked population of Sea Lamprey (*Petromyzon marinus*). The endangered fish species Pollan (*Coregonus autumnalis pollan*) is recorded from Lough Derg. Lough Derg is also a well known fishing lake with a good Trout (*Salmo trutta*) fishery. Atlantic Salmon (*Salmo salar*) also use the lake as a spawning ground.

Otter and Badger have been recorded within the site.

Land use within the site is mainly of a recreational nature with many boat hire companies, holiday home schemes and angling clubs located at the lake edge.

Recreational disturbance may pose a threat to the wintering wildfowl populations, though tourism is scaled down during the winter. The water body is surrounded mainly by improved pastoral farmland to the south and east, with areas of bog to the south-west and west. Coniferous plantations are present along the west and north-west shore and small areas of these are included within the site. If these areas are felled no further planting should take place as afforestation damages the wetland habitats between the plantation and lake edge.

The main threats to the quality of the site are water polluting activities resulting from intensification of agricultural activities around the lake shore, uncontrolled discharge of sewage, which is causing eutrophication of the lake, and housing and boating development which has resulted in the destruction of lakeshore habitats. There is also significant fishing and shooting pressure on and around the lake. Forestry can result in the loss of some areas of wetland habitat. The spread of Zebra Mussel (*Dreissena polymorpha*) in Lough Derg also poses a threat the ecology of the lake.

This is a site of significant ecological interest, with six habitats listed on Annex I of the E.U. Habitats Directive. Four of these are priority habitats - Cladium fen, alluvial woodland, limestone pavement and Yew woodland. Other annexed habitats present include alkaline fen and Juniper scrub formations on heath and calcareous grasslands. In addition, the lake itself is an SPA that

supports important numbers of wintering wildfowl, Greenland White-fronted Goose, Common Tern and Cormorant, a number of which are listed under Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
5130	<i>Juniperus communis</i> formations on heaths or calcareous grasslands
7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *
7230	Alkaline fens
8240	Limestone pavements*
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*
91J0	<i>Taxus baccata</i> woods of the British Isles*

* denotes a priority habitat

4.3.2. Special Protection Areas

Lough Derg (Shannon) SPA (Site Code 004058):

Lough Derg is the largest of the Shannon Lakes, being some 40 km long. Its maximum breadth across the Scarriff Bay -Youghal Bay transect is 13 km but for most of its length it is less than 5 km wide. The lake has many small islands, especially on its western and northern sides. The shoreline is often fringed with swamp vegetation. Aquatic vegetation includes a range of charophyte species, including the Red Data Book species, *Chara tomentosa*. The shoreline is often fringed by swamp vegetation, comprised of such species as Common Reed (*Phragmites australis*), Great Fen-sedge (*Cladium mariscus*) and Bottle Sedge (*Carex rostrata*).

Lough Derg is of importance for both breeding and wintering birds. In winter, the lake is important for a range of waterfowl species.

Lough Derg is of conservation interest for its fish and freshwater invertebrates. Lampreys, listed on Annex II of the E.U. Habitats Directive, are known to occur and the lake contains a landlocked population of Sea Lamprey (*Petromyzon marinus*). The endangered fish species Pollan (*Coregonus autumnalis pollan*) is recorded from Lough Derg, one of only four sites (L. Neagh, L. Erne, L. Ree and L. Derg) in which it occurs. Lough Derg is also a well-known fishing lake with a good Trout (*Salmo trutta*) fishery.

Atlantic Salmon (*Salmo salar*) also use the lake as a spawning ground.

Lough Derg was classified as being strongly eutrophic in the early 1990s. Since 1997, a monitoring programme on the Shannon lakes has shown that the symptoms of eutrophication previously documented (i.e. high chlorophyll level and reduced water visibility) have been ameliorated significantly. These reductions have coincided with the invasion of the Shannon system by the Zebra Mussel (*Dreissena polymorpha*), a species which feeds on plankton, and also with measures to reduce phosphorus in sewage plants in the catchment. Enrichment of the lake, both by agricultural run-off and sewage, remains a threat and could affect the bird populations, especially the diving duck. Whilst the presence of Zebra Mussel in Lough Derg appears to have improved water quality in the lake, in the long-term this invasive bivalve may threaten the ecology of the lake. Recreational activities presently cause some disturbance to the birds and an increase in such activities would be of concern.

Lough Derg SPA is of high ornithological importance as it supports nationally important breeding populations of Common Tern, Cormorant, Great Crested Grebe, and probably Tufted Duck and

Black-headed Gull. In winter, it has nationally important populations of Tufted Duck and Goldeneye, as well as a range of other species including Whooper Swan. The site is still used on occasions by Greenland White-fronted Goose. The presence of Common Tern, Whooper Swan and Greenland White-fronted Goose is of particular note as these are listed on Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A017	Cormorant	<i>Phalacrocorax carbo</i>
A061	Tufted Duck	<i>Aythya fuligula</i>
A067	Goldeneye	<i>Bucephala clangula</i>
A193	Common Tern	<i>Sterna hirundo</i>

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, "Wetland and Waterbirds" may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest.

Thus, a second objective is included as follows:

Objective: To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derg (Shannon) SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Middle Shannon Callows SPA (Site Code 004096):

The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone (at southern point of Lough Ree) to the town of Portumna (northern point of Lough Derg). The Shannon Callows has a common boundary with two other sites of similar habitats, the River Suck Callows and the Little Brosna Callows, both of which are also Special Protection Areas.

The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. Two habitats listed on Annex I of the EU Habitats Directive are well represented within the site – *Molinia* meadows and lowland hay meadows. In places these two habitats grade into one another. Two legally-protected plant species (Flora (Protection) Order 1999) occur in the site: Opposite-leaved Pondweed (*Groenlandia densa*) in drainage ditches, and Meadow Barley (*Hordeum secalinum*) on dry alluvial grassland. The Red Data Book plant Green-winged Orchid (*Orchis morio*) is known from dry calcareous grasslands within the site, while the site also supports a healthy population of Marsh Pea (*Lathyrus palustris*).

The Middle Shannon Callows qualifies as a site of International Importance for wintering waterfowl both on the total numbers and for the Whooper Swan population. Whooper Swan is listed on Annex I of the EU Birds Directive. The site is also of national importance for breeding waterfowl.

The Shannon Callows continues to hold approximately 40% of the Irish population of Corncrake, a species of global conservation concern that is also listed on Annex I of the EU Birds Directive.

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse. In winter the site is internationally important for the total numbers of birds (regularly exceed 20,000) and for Whooper Swan in

particular. It also holds nationally important populations of a further five species. Some of the wintering species are listed on Annex I of the EU Birds Directive, including Whooper Swan, Greenland White-fronted Goose and Golden Plover. In summer the site supports important populations of breeding waders. Perhaps the most important species which occurs in the site is Corncrake (the site holds 40% of the national total), as this is listed on Annex I of the EU Birds Directive and is Ireland's only globally endangered species.

Main conservation objective:

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A038	Whooper Swan	<i>Cygnus cygnus</i>
A050	Wigeon	<i>Anas penelope</i>
A122	Corncrake	<i>Crex crex</i>
A140	Golden Plover	<i>Pluvialis apricaria</i>
A142	Lapwing	<i>Vanellus vanellus</i>
A156	Black-tailed Godwit	<i>Limosa limosa</i>
A179	Black-headed Gull	<i>Chroicocephalus ridibundus</i>

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, "Wetland and Waterbirds" may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest.

Thus, a second objective is included as follows:

Objective: To maintain or restore the favourable conservation condition of the wetland habitat at Middle Shannon Callows SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

4.4. Likely Effects of the Plan on Natura 2000 Sites

In June 2015, Galway County Council prepared and revised versions of each Chapter of the Draft Local Area Plan. The Appropriate Assessment consultants, in conjunction with the SEA team, reviewed these draft Chapters and provided feedback on the Policies, Objectives and supporting text.

Iterative reviews were carried out by the Appropriate Assessment team and recommendations were forwarded to the Council after each review to allow them to consider the proposed changes. The output was the final version of each Chapter that contained amended policies and mitigation measures specifically designed to address impacts on Natura 2000 sites.

Prior to the required analysis of each Policy and Objective of the Plan, it is possible to further scientifically assess the potential impacts on the Qualifying Interests of the SACs and Special Conservation Interests of the SPAs listed.

To this end, Table 4.1 sets out such an analysis based on the most up to date data available from the sources listed in Section 2.2 of the report. Habitat status is reported per the findings of the most recent Article 17 Report - Status of EU Protected Habitats and Species in Ireland, 2013.

Following the identification of potential impacts based on the most recent available scientific data for Qualifying Interests and Special Conservation Interests, Table 4.2 shows how specific elements of the Draft Local Area Plan were deemed to pose likely significant effects to the Conservation Objectives of the Natura 2000 sites considered.

It also demonstrates where these policies and objectives can be used as mitigation tools to avoid, reduce or minimise the potential adverse effects identified.

At Plan level it is not always possible to include specific information with regard to development and as such the recognition of mitigating Policies and Objectives that play a role in avoiding significant potential impacts on the Conservation Objectives of European sites is considered.

Therefore in most cases where the Policies and Objectives of the Plan are determined to have potential significant impacts, in the absence of mitigation, and in-combination with other plans or projects, then those Policies and Objectives that support the protection of European sites and Article 10 habitats are listed as mitigation measures.

If a Policy or Objective has no bearing on the Conservation Objectives or Integrity of a European site then the potential impact is not applicable and N/A is assigned in the potential impact column of Table 4.2. It follows that no mitigation is applicable in these cases also.

Table 4.1. Analysis of Qualifying Interests of the SACs and Special Conservation Interests of the SPAs potentially affected by the Plan.

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
Alkaline fens	<p>High water table. Ground surface water supply. Calcium-rich conditions.</p> <p>The Overall Status is considered to be Bad; the overall trend is Unknown due to the absence of a national survey for this habitat.</p>	Groundwater dependant. Highly sensitive to hydrological changes. Changes in nutrient or base status	<p>Drainage or reclamation of wetlands (which includes fens) is controlled under the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011. Permission is required from the relevant Local Authority where the area impacted by the works exceeds 0.1ha or the works may have a significant effect on the environment. Areas greater than 2ha require an EIS with the planning application. Works include installation of open drains or closed drains, opening of a watercourse, infilling with earth etc.</p> <p>Given the aquatic nature of this habitat and the interaction of the LAP area with Lough Derg potential impacts are assessed.</p>
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*	<p>Riparian/lacustrine habitat prone to flooding.</p> <p>The Overall Status is assessed as Bad due to ongoing pressures and highly fragmented nature of this habitat.</p>	Grazing, Invasive Species, Drainage, Planting of nonnative conifers, felling of native tree species.	<p>A number of variants of this woodland habitat exist, of which riparian forests of <i>Fraxinus excelsior</i> and <i>Alnus glutinosa</i> (<i>Alno-Padion</i>) of temperate and Boreal Europe lowland and hill watercourses are the most common type to be found in Ireland. The interpretation manual of EU habitats 2007 states that all types occur on heavy soils which are periodically inundated by the annual rise of river levels, but which are otherwise well drained and aerated during low water. In addition there are gallery forests of tall willows (<i>Salicion albae</i>) alongside river channels and occasionally on river</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
			<p>islands, where the tree roots are almost continuously submerged.</p> <p>Given the aquatic nature of this habitat and the interaction of the LAP area with the River Shannon and occurrence of Wet woodland which conforms to this habitat on the shores of Lough Derg potential impacts are assessed.</p>
<p>* Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae</p>	<p>Groundwater dependent. Highly sensitive to hydrological changes. Changes in nutrient or base status.</p> <p>The Overall Status is considered to be Bad; the overall trend is Unknown due to the absence of a national survey for this habitat.</p>	<p>Peat or turf cutting, arterial drainage, local drainage and agricultural reclamation, infilling of sites with building waste, dumping of household refuse, afforestation, water pollution and urban expansion.</p>	<p>Cladium fens occur in a variety of situations including fens found in valleys or depressions, floodplains, over-grown-ditches, extensive wet meadows, within tall reed beds, on the landward side of lakeshore communities, calcium rich flush areas in blanket bogs, dune slack areas, fens adjacent to raised and blanket bogs, in turloughs, wet hollows in machair and often in association with alkaline fen.</p> <p>Given the aquatic nature of this habitat and the interaction of the LAP area with Lough Derg potential impacts are assessed.</p>
<p><i>Juniperus communis</i> formations on heaths or calcareous grasslands</p>	<p>Onset of inundation or water logging Inappropriate management.</p> <p>The Overall Status has been assessed as Inadequate but stable as there is no evidence of any recent decline in condition and no change is foreseen in the immediate future.</p>	<p>Overgrazing; fire; agricultural expansion; invasion by alien species particularly <i>Rhododendron ponticum</i>; and poor regeneration.</p>	<p>Any damaging activity that impacts the conservation status of Juniper formation is regulated under the Environment Liability Regulations 2008.</p> <p>Any development in the terrestrial environment of the Plan area would be subject to assessment in terms of location and extent of Juniper scrub (where there are at least 50 individual Juniper Shrubs) within the overlapping areas of the Plan area and the Lough</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
			Derg North-east Shore SAC.
* Limestone pavements	Physical removal. Scrub encroachment. Limestone pavement quarrying, land reclamation, scrub encroachment, invasive non-native species, problematic native species and lack of grazing were considered the main pressures and resulted in an Overall Status of Inadequate.	Quarrying, reclamation for agriculture and reduced farming activity which has facilitated the spread of scrub over some areas. Intensive agriculture and domestic/municipal waste sources in the vicinity of pavement may also threaten groundwater.	The geology of the lake shore is principally limestone and in places this protrudes at the surface in the form of boulders and rubble, and can be classified as limestone pavement. Thus direct impacts from lakeshore development must be considered.
Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status. The Overall Status is assessed as Bad due to considerable historic losses caused by agricultural improvement.	Agricultural intensification; drainage; abandonment of pastoral systems	This habitat occurs in the River Shannon Callows SAC and while there is limited hydrological connectivity, it is considered in terms of flood management.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caeruleae</i>)	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status. The Overall Status is assessed as Bad due to historic losses and an ongoing decline in quality caused by succession to scrub, abandonment of pastoral systems, and abandonment of mowing.	Agricultural intensification; drainage; abandonment of pastoral systems	This habitat occurs in the River Shannon Callows SAC and while there is limited hydrological connectivity, it is also considered in terms of flood management.
Otter	Prey availability. Water Quality. Riparian vegetation for breeding sites.	Decrease in water quality: Use of pesticides; fertilization; vegetation removal; professional fishing (including	Otter is a qualifying interest for the River Shannon Callows SAC and potential impacts are assessed in terms of indirect

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	<p>Unhindered passage along waterways.</p> <p>The Overall Status is assessed as Favourable.</p>	<p>lobster pots and fyke nets); hunting; poisoning; sand and gravel extraction; mechanical removal of peat; urbanised areas; human habitation; continuous urbanization; drainage; management of aquatic and bank vegetation for drainage purposes; ; and canalization or modifying structures of inland water course.</p>	<p>upstream impacts in terms of hydrology and possible disturbance from water-based activities.</p>
<i>Taxus baccata</i> woods	<p>Changes in management. Changes in nutrient or base status. Introduction of alien species.</p> <p>The Overall Status is Bad but improving</p>	<p>The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to woodlands; and the construction of communication networks through the woodland.</p>	<p>A substantial area of Yew is located on limestone at Cornalack, where Yew forms a scrub woodland along the east shore of Lough Derg. Elsewhere, small stands of Yew occur.</p> <p>This habitat is unlikely to be affected by the Local Area Plan.</p>
Wetlands & Waterbirds	<p>Highly sensitive to hydrological changes and loss of wetland habitat. Sensitive to disturbance.</p>	<p>A number of pressures have been identified by Crowe (2005). These pressures include: the modification of wetland sites, particularly for industry or housing and increased levels of disturbance, largely related to recreational activity. Eutrophication at a number of wetland sites as a result of nutrient inputs from a range of polluting activities were also identified as a potential pressure. However this latter pressure is now being alleviated through stricter control of activities associated with water discharge/runoff etc. Climate change was also noted as a significant factor underlying changes in trends of wintering waterbirds in Ireland.</p>	
Cormorant (<i>Phalacrocorax carbo</i>) A017 (breeding)	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although</p>	<p>Urbanization: Collision from powerlines and wind turbines</p>	<p>Cormorant is a Special Conservation Interest for the Lough Derg (Shannon) SPA.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
004058	<p>eutrophication not necessarily a threat to this species). Water pollution. Disturbance.</p> <p>In 2012 it was estimated that the Irish breeding population numbered 4,366 pairs and the short-term population trend is stable. Cormorant are currently Amber-listed due to a moderate (35-69%) decline in breeding range and a localized breeding population (Colhoun & Cummins 2013). The European population (EUR25) of this species is assessed as Secure and there have been large increases in both wintering and breeding populations (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with an increasing population trend (BirdLife International 2012).</p>	<p>Human interference: Pollution of aquatic habitats. Disturbance and persecution at nesting colony sites (to which this species is very loyal). Persecution by fisheries interests. (Lough Derg (Shannon) SPA Natura 2000 Form)</p>	<p>Parts of the plan relating to water quality will be of concern with regard to this species along with disturbance and loss of habitat.</p>
<p>Whooper Swan (<i>Cygnus cygnus</i>) A038 (wintering) 004096</p>	<p>Management practices of grasslands. Hydrological changes. Changes to wetland structure and distribution. Disturbance.</p> <p>In 2010, the RoI wintering population of this species was estimated at 10,520 birds, of which 4,170 are within the SPA network. There have been both long and short-term population increases. Whooper Swans are currently Amber-listed in Ireland due to the hosting of more than 20% of the European wintering population, the majority of which winter at ten or less sites (Colhoun & Cummins 2013).</p>	<p>Urbanization: Collision from powerlines and wind turbines Climate change, dispersed habitation, Change of land use: (e.g. from grazing to silviculture) Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot. Deliberate and accidental disturbance from farmland feeding sites (reseeded fields and winter cereals). (Bolland <i>et al.</i>, 2010, Middle Shannon Callows SPA Natura 2000 Form)</p>	<p>Whooper swan is a Special Conservation Interest for the River Shannon Callows SPA and is considered in term of flood management and potential changes to upstream wetland structure and habitat availability.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	<p>Furthermore, this species relies on a very small breeding population internationally. Consequently, this species is listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC). BirdLife International has, however, assessed the European population of this species as Secure owing to its extensive range and large numbers which have experienced a recent increase (BirdLife International 2004). Similarly, this species has been listed as Least Concern by (BirdLife International 2012).</p>		
<p>Wigeon (<i>Anas penelope</i>) A050 (wintering) 004096</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands Climate change & weather conditions.</p> <p>Wintering Wigeon are currently Red-listed in Ireland due to a long-term decline in the non-breeding population (Colhoun & Cummins 2013). In 2011, the RoI wintering population was estimated at 56,350 birds, of which 43,746 were recorded within the SPA network. There have been both short-term and long-term wintering population declines and a short-term population decline within the SPA network. The European (EUR25) population of this species as Secure and both breeding and wintering populations were classified as Stable (BirdLife International 2004). Globally, this species is considered to be of Least Concern, albeit with a decreasing</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Extent of flooding on the Shannon callow system influences numbers.</p> <p>Agricultural change of practice: changing wetland management practices (decreased grazing and mowing in meadows leading to scrub over-growth)</p> <p>Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports</p> <p>Urbanization: Collision from powerlines and windturbines</p> <p>Predation: Primarily from foxes, pine marten, and American mink (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form)</p>	<p>Wigeon is a Special Conservation Interest for the River Shannon Callows SPA and is considered in term of flood management and potential changes to upstream habitat availability.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	population trend, due to its large world population and huge population range.		
Tufted Duck (<i>Aythya fuligula</i>) A061 (wintering) 004058	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although eutrophication not necessarily a threat to this species). Water pollution. Disturbance.</p> <p>Tufted Duck is currently Red-listed in Ireland due to a short-term decline in the non-breeding population (Colhoun & Cummins 2013). In 2012 it was estimated that the Irish wintering population numbered 20,980 birds, 15,540 of which were within the SPA network. Short-term (i.e. last 12 years) population trend is increase (stable within the SPA network) and the long-term (i.e. since c. 1980) trend is unknown. The European population (EUR25) of this species is assessed as Declining and there have been moderate declines in both wintering and breeding populations (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with a stable population trend (BirdLife International 2012).</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Migratory short stopping in response to warmer winters could cause long-term decline of wintering population (wintering population range has already shifted north-eastwards).</p> <p>Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports</p> <p>Urbanization: Collision from power lines and wind turbines. (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form, Tomankova et al., 2013)</p>	<p>Tufted Duck is a Special Conservation Interest for the Lough Derg (Shannon) SPA.</p> <p>Parts of the plan relating to water quality will be of concern with regard to this species along with disturbance and loss of habitat.</p>
Goldeneye (<i>Bucephala clangula</i>) A067 (wintering) 004058	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although eutrophication not necessarily a threat to this species). Water pollution. Disturbance.</p> <p>Goldeneye is currently Red-listed in</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Migratory short stopping in response to warmer winters could cause long-term decline of wintering population (wintering population range has already shifted north-eastwards).</p>	<p>Goldeneye is a Special Conservation Interest for the Lough Derg (Shannon) SPA.</p> <p>Parts of the plan relating to water quality will be of concern with regard to this species along with disturbance and loss of habitat.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	<p>Ireland due to a short-term decline in the non-breeding population (Colhoun & Cummins 2013). In 2012 it was estimated that the Irish wintering population numbered 1,940 birds, 1,308 of which were within the SPA network. Both short-term (i.e. last 12 years) and long-term (i.e. since c. 1980) population trends are decreasing, as is the short-term trend within the SPA network. The European population (EUR25) of this species is assessed as Secure, the wintering population is considered Stable and there has been a moderate increase in the breeding population (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with a stable population trend (BirdLife International 2012).</p>	<p>Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports Urbanization: Collision from power lines and wind turbines. (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form, Tomankova et al., 2013)</p>	
<p>Corncrake (<i>Crex crex</i>) A122 (breeding) 004096</p>	<p>Management practices of habitat: loss of hay-meadows and wetlands; intensification of grassland management; loss of habitat through vegetation succession/land abandonment; insufficient extent and design of conservation measures.</p> <p>In 2012, the RoI breeding population was counted at 135 calling males. There have been both short and long-term population declines, along with a long-time population range decline (the short-term range trend is Stable). Currently this species is Red-listed in Ireland due to significant declines in range and population (Colhoun & Cummins 2013).</p>	<p>Agricultural intensification/change of practices : Irish decline was first started by the introduction of faster growing grass varieties that allowed earlier mowing for hay and later by the introduction of silaging, which in many places has replaced the saving of hay. Nest destruction, early mowing being the most important threat; increased chick mortality during mowing, adult mortality during mowing. Ploughing and neglect of hay meadows. (AEWA Single species action plan Corncrake, Crowe, 2005, Middle Shannon Callows SPA Natura 2000 Form).</p>	<p>Corncrake is a Special Conservation Interest for the River Shannon Callows SPA and is unlikely to be affected by the Local Area Plan.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	<p>Additionally, though it is listed on the IUCN Red List of Threatened Species in the Least Concern category (with a stable population trend), following upward revisions of the global population estimates (BirdLife International 2012), Corncrakes are listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC) due to declines in range and population throughout Europe. The European population (EUR25) of this species is assessed as Depleted, the breeding population trend has recently shown a large increase (BirdLife International 2004).</p>		
<p>Golden Plover (<i>Pluvialis apricaria</i>) A140 (wintering) 004096</p>	<p>Afforestation and intensification of farming practices.</p> <p>The Golden Plover is Red-listed in Ireland (Lynas et al. 2007; Colhoun & Cummins 2013), due to large declines in its breeding population and breeding range and more recent declines in wintering populations. The European population is considered Secure. Though declines were recorded in several populations in Western Europe, this was compensated for by increases in its Finnish population and stability elsewhere (BirdLife International 2004). This is further regarded as being of Least Concern internationally by the IUCN (BirdLife International 2012). Given its significant regional declines, this species is also listed under Annex I of the EC Council Directive on the</p>	<p>Urbanisation: Loss/modification of wetland, peatland, collision risk from power lines and wind-turbines.</p> <p>Agricultural intensification/change of practices: Loss of peatland & farmland habitat. Burning of peatland and overgrazing by sheep.</p> <p>Afforestation</p> <p>Climate change: Widescale departures of Golden Plover with the onset of severe winter cold have been noted from the British Isles could result in increased winter mortality (Wernham <i>et al.</i> 2002) Warm and dry autumns could become the norm in southern England and Ireland which could favour rapid growth of winter cereals to heights which are unfavourable, thereby causing rapid</p>	<p>Golden Plover is a Special Conservation Interest for the River Shannon Callows SPA and is unlikely to be affected by the Local Area Plan.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	<p>Conservation of Wild Birds (2009/147/EC). It is thought that the southern extremities of its European breeding range (including populations in Ireland and the UK) have been in decline since the 19th Century (Tucker & Heath 1994).</p>	<p>abandonment by Golden Plovers (Mason & Macdonald, 1999) Human interference: hunting, disturbance, leisure fishing and nautical sports Predation: (EU management plan – Golden Plover 2009-2011, Middle Shannon Callows SPA Natura 2000 Form)</p>	
<p>Lapwing (<i>Vanellus vanellus</i>) A142 () 004096</p>	<p>Management practices of grasslands. Hydrological changes. Changes to wetland structure and distribution. Disturbance.</p> <p>Breeding Lapwings are Red-listed in Ireland due to long-term declines in this breeding population (Colhoun & Cummins 2013). In 2008, the RoI breeding population was estimated at 2,000 pairs. There have been both long and short-term population and breeding range declines. The European population, previously regarded as Secure, is now listed as Vulnerable (BirdLife International 2004) owing to a more than 30% decline in overall breeding numbers. Despite these large declines, the global population of this species remains high and is regarded as being of Least Concern by the IUCN (BirdLife International 2012).</p>	<p>Agricultural intensification: Fertiliser, drainage, loss of traditional farming practices, pesticides Urbanisation: Loss of habitat, powerlines & wind turbine collision, Pollution: Deposition of nutrients, particularly nitrogen compounds, can lead to unfavourable changes in vegetation structure and generally increase vegetation growth, to the detriment of Lapwings. Predation Human disturbance: leisure fishing and nautical sports, Climate change Winter flooding improves conditions for breeding Lapwing by keeping sward short and open and by creating suitable, wet feeding areas (Ausden <i>et al.</i> 2001). (EU management plan Lapwing 2009-2011, Middle Shannon Callows SPA Natura 2000 Form)</p>	<p>Lapwing is a Special Conservation Interest for the River Shannon Callows SPA and is considered in term of flood management and potential changes to upstream habitat availability.</p>
<p>Black-tailed Godwit (<i>Limosa limosa</i>) A156 (wintering)</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands.</p>	<p>Urbanisation: Loss of habitat, powerlines & wind turbine collision,</p>	<p>Black-tailed Godwit is a Special Conservation Interest for the Lough Derg (Shannon) SPA.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
004096	<p>Black-tailed Godwit occurs in internationally important numbers in Ireland. It is Amber-listed. With fewer than three pairs of Black-tailed Godwit proven breeding in recent years (Hillis 2010, 2011, 2012 in Colhoun & Cummins 2013) this species now qualifies under the rare breeder category. In 2011, the RoI wintering population was estimated at 18,080 birds and both the short and long-term population trends were increasing. The European population is considered to be Vulnerable; the breeding population trend is of large decline and the wintering population trend is of moderate decline (BirdLife International 2004). Globally, the population of this species is considered Near Threatened and the population trend is decreasing (BirdLife International 2012).</p>	<p>Pollution: Habitat change (e.g. reduction in prey density) due to reductions in organic loadings to wetlands caused by the introduction of, or improvement to, waste-water treatment plants.</p> <p>Invasive species: Zebra mussel filtration of phytoplankton and suspended particulate resulting in a reduction of invertebrates could impact on food source of larval fish. This could impact on fish food sources</p> <p>Predation Human disturbance: leisure fishing and nautical sports, Climate change: (EU management plan for Black-tailed godwit 2007-2009, Middle Shannon Callows SPA Natura 2000 Form)</p>	<p>Parts of the plan relating to water quality will be of concern with regard to this species along with disturbance and loss of habitat.</p>
<p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A179 () 004096</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Nest predation. Pollution at sea.</p> <p>Though significant populations exist elsewhere in the Palaearctic, breeding Black-headed Gulls have been placed on the Red-list of Birds of Conservation Concern in Ireland since 2007, owing to a rapidly declining and localised breeding population (Lynas et al. 2007; Colhoun & Cummins 2013). The European population of this species is regarded as Secure, despite declines in several countries (BirdLife International 2004). The aggregate global population</p>	<p>Predation: Inland breeding sites affected by the spread of American Mink.</p> <p>Agricultural intensification: Drainage</p> <p>Urbanisation: Loss of wetland habitat, powerlines & wind turbine collision</p> <p>Nutrification: Black-headed Gulls frequently forage at WWTP outfalls. They undoubtedly benefit from artificial food sources (Burton et al. 2001) supplied by WWTPs</p> <p>Invasive species: Zebra mussel filtration of phytoplankton and suspended particulate resulting in a</p>	<p>Black-headed Gull is a Special Conservation Interest for the Lough Derg (Shannon) SPA.</p> <p>Parts of the plan relating to water quality will be of concern with regard to this species along with disturbance, loss of habitat and the spread of Zebra mussels in Lough Derg.</p>

Qualifying Interests & Special Conservation Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests & Special Conservation Interests	Potential Impacts
	of this species has been assessed as Least Concern (BirdLife International 2012).	reduction of invertebrates could impact on food source of larval fish. This could impact on fish food sources. (Craik, 1997, Middle Shannon Callows SPA Natura 2000 Form)	
Common Tern (<i>Sterna hirundo</i>) A193 (breeding) 004058	<p>Sensitive to wetland habitat loss. On the breeding grounds, this species is sensitive to disturbance from outdoor leisure activities, to coastal erosion and development, to natural flooding, to predation at nest sites (large gulls and mink) and vegetation overgrowth. Pollution at sea.</p> <p>Common Tern is in the BoCCI Amber list due to a moderate decline in breeding range and a localized breeding population. This species is also listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC). In 2012 it was estimated that the Irish breeding population numbered 4,887 birds, short and long-term breeding population trends were both increasing, as were the long and short-term breeding range trends. The European population of this species is regarded as Secure (BirdLife International 2004). The aggregate global population of this species has been assessed as Least Concern (BirdLife International 2012), albeit with a decreasing population trend.</p>	<p>Predation: Inland breeding sites affected by the spread of American Mink and large gull breeding sites.</p> <p>Agricultural intensification: Drainage</p> <p>Urbanisation: Loss of wetland habitat, powerlines & wind turbine collision.</p> <p>Climate Change Climate change could lead to scarcity of food supplies and sea level rises could lead to nest flooding and loss of breeding sites.</p>	Common Tern is a Special Conservation Interest for the River Shannon Callows SPA and is considered in term of flood management and potential changes to upstream wetland structure and habitat availability.

Table 4.2. Aspects of the Local Area Plan and how they have been mitigated as a result of the Appropriate Assessment process.

Section	Policy/Objective	Potential Likely Significant Impact	Mitigation Elements of the LAP to address the Potential Likely Significant Impact
<p>2.2.6 Development Strategy Policy and Objectives</p>	<p>Policy DS 1 – Development Strategy It is the overarching policy of Galway County Council to support and facilitate the sustainable development of the plan area in line with the preferred development strategy option, Option 3 - Consolidate the Town Expansion & Promote Sequential Development with a Refined Plan Boundary, which allows Portumna to develop in a manner, that maintains and enhances the quality of life of local communities, promotes opportunities for economic development, sustainable transport options and social integration, connectivity and social integration, protects the cultural, built, natural heritage and environment and complies with relevant statutory requirements.</p>	<p>This is a general overarching policy which mentions the enhancement of local communities, economic development, transport development, connectivity etc. It is not possible to scientifically assess this Policy in terms of its overarching context and the Conservation Objectives of the four European sites that may be affected by the Policy and all within the confines of a Local Area Plan.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>The primary vector in terms of impacts on aquatic habitats and species is water. Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species, either directly through contact or ingestion, or indirectly by negatively impacting either aquatic or shoreline vegetation or fish populations. SPA species that could potentially be impacted by the former include all those that occupy the aquatic zone or adjacent habitat (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Species that could be affected by impacts on lake/river fish populations are Cormorant, Black-headed Gull, Common Tern and (to a lesser extent)</p>	<p>The inclusion of Objective DS 3 – European Sites is acknowledged: 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/superseding 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 a full Appropriate Assessment where necessary, that:</p> <ol style="list-style-type: none"> 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 where 2. The plan or project will adversely affect 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 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 where 3. The plan or project will adversely affect the integrity of any European site (that hosts a priority natural habitat type and/or a priority species) but there

<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>		<p>Goldeneye. Species that could be affected by impacts on invertebrate populations comprise the SPA species Tufted Duck, Goldeneye, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull (although it should be remembered that declining invertebrate populations will have impacts on local fish populations). Impacts on aquatic vegetation communities could affect the SPA species Tufted Duck, Goldeneye, Whooper Swan and Wigeon. There is potential for development to cause changes (probably to increase, if there is a change) in nutrient levels in wetlands or water. An increase in nutrients (eutrophication) can have an initial positive impact on vegetarian bird species and those that feed on invertebrates and fish (i.e. all of the SCI species of the Lough Derg (Shannon) and Middle Shannon Callows SPAs, except for Corncrake). However, eutrophication can cause a shift in the state of an aquatic ecosystem (e.g. from a clear-water state with dominant aquatic macrophytes to a turbid state with dominant phytoplankton). Such a change of state could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes, invertebrates or fish were negatively impacted. Affected species could include Wigeon, Tufted Duck, Goldeneye, Whooper Swan, Common Tern and Cormorant. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of 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.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged: It is an objective of Galway County Council to ensure that Appropriate Assessment Screening and Appropriate Assessment, if required, is undertaken in view of the Conservation Objectives of the European sites that may be affected by the policies and objectives of the Plan and that:</p> <p>a) The AA process will be a scientific assessment that will present relevant evidence where required, including data and analysis as available from the most up to date Article 17 reports on the conservation status of the natural habitats and species in the Habitat Directive Annexes and the most up to date Article 12 reports on status and trends of bird species, in addition to, data on ecological features in or near the Plan area available from other sources e.g. National Biodiversity Data Centre, BirdWatch Ireland, Bat Conservation Ireland and other sources as appropriate.</p> <p>b) Similarly that all habitats and species protected by Article 10 of the Habitats Directive and any other sites that may be considered as stepping stones in support of the European sites will be addressed as part of the AA process.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged: Project specific mitigation measures may be included in a Construction Management Plan (CMP) or an Environmental Operating Plan (EOP) and</p>
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2.2.6. Development Strategy Policy and Objectives (cont)	<p>Objective DS 1 – Orderly and Sequential Development</p> <p>Support the orderly and sequential development of the plan area, focusing on the consolidation and continued vitality and viability of the town centre and the protection and enhancement of the existing landscape setting, character, heritage and unique identity of the town.</p>	N/A	N/A
2.2.6. Development Strategy Policy and Objectives (cont)	<p>Objective DS 2 – Consistency with Core Strategy</p> <p>Galway County Council will ensure that developments permitted within the plan area are consistent with the zoned land allocations in the Core Strategy and associated provisions in the Galway County Development Plan.</p>	N/A	N/A
2.2.6. Development Strategy Policy and Objectives (cont)	<p>Objective DS 3 – European Sites</p> <p>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</p>	Positive	The inclusion of Objective DS 3 – European Sites is acknowledged.

	<p>Assessment Guidelines 2010 (and any updated/superseding 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 a full Appropriate Assessment where necessary, that:</p> <ol style="list-style-type: none"> 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 where 2) The plan or project will adversely affect 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 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 where 3) The plan or project will adversely affect the integrity of any European site (that hosts a priority 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 of 		
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	<p>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.</p>		
<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>	<p>Objective DS 4 – Development Management Standards and Guidelines The general development management standards and guidelines set out under the current Galway County Development Plan, or any subsequent variation/review, shall apply as appropriate in the plan area. In addition, any specific development management guidelines set out in Section 3 of this plan shall also be applied, as appropriate, to development proposals in the plan area.</p>	<p>Positive</p>	<p>N/A</p>
<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>	<p>Objective DS 5 – Service Led Development Development under the plan shall be preceded by sufficient capacity in the public waste water infrastructure and potable water infrastructure.</p>	<p>N/A</p>	<p>N/A</p>
<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>	<p>Objective DS 6 – Residential Development Phasing (refer to Maps 1A/1B) Direct residential development into appropriately zoned and serviced areas in accordance with the phased development framework set out in Section 3.1 and 3.2 and on Maps 1A/1B – Land Use Zoning.</p>	<p>N/A</p>	<p>N/A</p>
<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>	<p>Objective DS 7 – Flood Risk Management and Assessment (Refer to Map 3A and 3B) Ensure that proposals for new</p>	<p>N/A</p>	<p>N/A</p>

	developments located within identified or potential flood risk areas, or which may exacerbate the risk of flooding elsewhere, are assessed in accordance with the provisions of The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (or as updated) & Departmental Circular PL2/2014 and the relevant policies and objectives of this plan.		
2.2.6. Development Strategy Policy and Objectives (cont)	Objective DS 8 – Climate Change & Adaptation Galway County Council shall support the National Climate Change Strategy and follow on document the National Climate Change Adaptation Framework Building Resilience to Climate Change 2012 (or any updated/superceding document) including the transition to a low carbon future, taking account of flood risk, soil erosion, the promotion of sustainable transport, improved air quality, the importance of biodiversity and green infrastructure, the use of renewable resources and the reuse of existing resources	N/A	N/A
2.2.6. Development Strategy Policy and Objectives (cont)	Objective DS 9 – Screening for Appropriate Assessment It is an objective of Galway County Council to ensure that Appropriate Assessment Screening and Appropriate Assessment, if required, is undertaken in view of the Conservation Objectives of the European sites that may be affected by the policies and objectives of the Plan and that: a) The AA process will be a scientific assessment that will present relevant evidence where required, including data and analysis as available from the most up to date Article 17 reports on the conservation status of the natural habitats and species in the Habitat Directive Annexes and the most up to date Article 12 reports on status and trends of bird	Positive	The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.

	<p>species, in addition to, data on ecological features in or near the Plan area available from other sources e.g. National Biodiversity Data Centre, BirdWatch Ireland, Bat Conservation Ireland and other sources as appropriate.</p> <p>b) Similarly that all habitats and species protected by Article 10 of the Habitats Directive and any other sites that may be considered as stepping stones in support of the European sites will be addressed as part of the AA process.</p>		
<p>2.2.6. Development Strategy Policy and Objectives (cont)</p>	<p>Objective DS 10 – Future Developments and EU Directives Ensure that all future developments within the plan area fully take into account the requirements of the EIA, Habitats, Birds, Water Framework and Floods Directives respectively, as relevant and appropriate.</p>	<p>Positive</p>	<p>The inclusion of Objective DS 10 – Future Developments and EU Directives is acknowledged.</p>
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Policy LU 1 – Land Use Management (Refer to Maps 1A/1B) It is the policy of Galway County Council to provide a land use zoning framework for the plan area, to direct the type, density and location of development in a manner that contributes to the consolidation of the town centre and that complies with the statutory requirements of the Planning and Development Acts 2000 (as amended). The land use zoning framework is supported by a residential phasing scheme to ensure compliance with the Core Strategy and to promote the orderly and sequential development of the town.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.	
3.1.2. Land Use Management Policies and Objectives (cont)	Objective LU 1 – Town Centre/Commercial (C1) (Refer to Maps 1A/1B) Promote the sustainable development of the Town Centre as an intensive, well connected, high quality, well-landscaped, human-scaled and accessible environment, with an appropriate mix of uses, including residential, commercial, service, tourism, enterprise, public and community uses as appropriate, that provides a range of retail services, facilities and amenities to the local community and visitors to the town. The town centre and associated main streets shall remain the primary focus for retail and service activity within Portumna.	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
3.1.2. Land Use Management Policies and Objectives (cont)	Objective LU 2 – Commercial/Mixed Use (C2) (Refer to Maps 1A/1B) Promote the sustainable development of commercial and complimentary mixed uses, on suitable lands that can provide focal points for the provision of services to surrounding neighbourhoods/areas and opportunities for commercial enterprises,	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation</p>

	<p>retail developments and employment creation and which do not undermine the vitality and viability of the town centre.</p>	<p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 3 – Residential (R) (Refer to Maps 1A/1B and Objective RD1) Promote a phased, sequential approach on Residential zoned lands, with a strong emphasis on consolidating existing patterns of development, encouraging infill opportunities and promoting sustainable transport options.</p> <p>It is an objective to:</p> <p>(a) Promote the development of appropriate and serviced lands to provide for high quality, well connected and well laid out and landscaped sustainable residential communities with an appropriate mix of housing types and densities, together with complementary land uses such as community facilities, and sustainable transport options to serve the residential population of the area and the surrounding environment.</p> <p>(b) Protect existing residential amenities and facilitate compatible and appropriately designed new infill development, in accordance with the proper planning and sustainable development of the area.</p> <p>A phasing scheme shall apply to residential (r) zoned lands, as set out under Objective RD1 in Section 3.2.2.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA’s designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 4 – Industrial (I) (Refer to Maps 1A/1B) Promote the sustainable development of industrial and industrial related uses, including manufacturing, processing of materials, warehousing and distribution on suitable lands, with adequate services and facilities and a high level of access to the major road networks and public transport facilities.</p> <p>Adequate perimeter treatment and/or screening will be required to ensure high quality interfaces with public spaces and any adjoining residential areas or other sensitive land uses, as appropriate.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 5 – Business & Enterprise (BE) (Refer to Maps 1A/1B) Promote the sustainable development of business and enterprise uses, light industry/warehousing and the facilitation of enterprise park/office park type uses, incubation/start-up units and Small Medium Enterprises, on suitable lands with adequate services and facilities and with a high level of access to the major road networks and to public transport facilities.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 6 – Community Facilities (CF) (Refer to Maps 1A/1B) Promote the sustainable development of community facilities on suitable lands, with a high level of access to the local community, including educational, community, civic, public, institutional, recreational, cultural and other complementary uses, as appropriate.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA’s designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 7 – Tourism (T) (Refer to Maps 1A/1B) Promote Portumna as a premier tourist destination in its own right and as a tourism hub for the south east of the county, offering a high quality, rich and diverse experience to all visitors.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 8 – Open Spaces/Recreation & Amenity (OS) (Refer to Objective DS 9 Map 1A/1B) Promote the sustainable management, use and/or development, as appropriate, of the OS lands. This will include the:</p> <ul style="list-style-type: none"> a) Development of open spaces and recreational activities, in accordance with best practice and on suitable lands with adequate access to the local community and retain existing open space and recreational facilities, unless it can be clearly demonstrated to the satisfaction of Galway County Council that these uses are no longer required by the community. b) Appropriate management and use of any flood risk areas within the OS Zone to avoid, reduce and/or mitigate, as appropriate, the risk and 	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

	potential impact of flooding.		
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 9 – Constrained Land Use Zone (CL) (Refer to Objective DS 9 also) To facilitate the appropriate management and sustainable use of flood risk areas.</p> <p>This zoning limits new development, while recognising that existing development uses within these zones may require small scale development, as outlined below, over the life of the Local Area Plan, which would contribute towards the compact and sustainable urban development of the town.</p> <p>The underlying zoning or the existing permitted uses are deemed to be acceptable in principle for minor developments to existing buildings (such as small extensions to houses, most changes of use of existing buildings), which are unlikely to raise significant flooding issues, provided they do not obstruct important flow paths, introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances.</p> <p>Development proposals within this zone shall be accompanied by a detailed Flood Risk Assessment, carried out in accordance with <i>The Planning System and Flood Risk Assessment Guidelines & Circular PL 2/2014</i> (or as updated), which shall assess the risks of flooding associated with the proposed development.</p> <p>Proposals shall only be considered where it is demonstrated to the satisfaction of the Planning Authority that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities, or</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the water courses during construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lough Derg system.</p> <p>The ecological effects of changes in nutrient levels within an ecosystem are difficult to predict, initial increases in prey/food availability can be reversed if there is a change of the state of the ecosystem as a whole. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as Common Tern and Black-headed Gull.</p>	<p>The inclusion in Objective LU 13 – Constrained Land Use Zone (CL) is acknowledged: Proposals shall only be considered where it is demonstrated to the satisfaction of the Planning Authority that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities, or increase the risk of flooding to other locations. The nature and design of structural and non-structural flood risk management measures required for development in such areas will also be required to be demonstrated, so as to ensure that flood hazard and risk will not be increased. Measures proposed shall follow best practice in the management of health and safety for users and residents of the development.</p> <p>Development in flood prone areas will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of a Flood Risk Assessment and any project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 – European Sites is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

	<p>increase the risk of flooding to other locations. The nature and design of structural and non-structural flood risk management measures required for development in such areas will also be required to be demonstrated, so as to ensure that flood hazard and risk will not be increased. Measures proposed shall follow best practice in the management of health and safety for users and residents of the development.</p> <p>Specifications for developments in flood vulnerable areas set out in this plan shall be complied with as appropriate. (Please also refer to Objective FL3 & DM Guideline FL2)</p>		
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 10 – Environmental Management (EM) (Refer to Map 1A/1B) Protect lands and sites with high biodiversity value and/or environmental sensitivity and promote their sustainable management and use. This will include the protection of the integrity of European sites that form part of the Natura 2000 network, in particular Special Areas of Conservation, in accordance with the conservation management objectives of these sites and the requirements of the EU Habitats Directive (92/43/EEC).</p>	<p>Positive</p>	<p>N/A</p>
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 11 – Public Utilities (PU) (Refer to Map 1A/1B) Facilitate the provision and maintenance of essential public utility infrastructure, together with necessary ancillary facilities and uses, as appropriate.</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the River and Lake systems.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>(chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09)</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 12 – Transport Infrastructure (TI) (Refer to Map 1A/1B) Facilitate the provision and maintenance of essential transportation infrastructure. This shall include the reservation of lands to facilitate public roads, footpaths, harbours, canals, cycle ways, bus stops and landscaping, together with any necessary associated works, as appropriate.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species occupying the aquatic zone (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Changes in nutrient levels in wetlands or water can have an initial positive impact on bird species that feed on water plants, invertebrates and fish. However, eutrophication can cause a shift in the state of an aquatic ecosystem and such a change could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes,</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		invertebrates or fish were later negatively impacted. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.	
3.1.2. Land Use Management Policies and Objectives (cont)	Objective LU 13 – Flood Risk Areas and Land Use Zones (Refer to Maps 1A/1B and Maps 3A/3B) Ensure that any proposed development that may be compatible with the land use zoning objectives/matrix but which includes a use that is not appropriate to the Flood Zone (as indicated on Maps 3A/3B – Flood Risk Management) and/or that may be vulnerable to flooding is subject to flood risk assessment, in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 and Departmental Circular PI 2/2014 (or as updated within the lifetime of this plan) and the policies and objectives of this plan.	N/A	N/A
3.1.2. Land Use Management Policies and Objectives (cont)	Objective LU 14 – Land Use Zoning Matrix (Refer to DM Guideline LU2) Direct different land uses into the appropriate land use zone(s) in accordance with the land use zoning objectives and the land use zoning matrix set out under DM Guideline LU 2 . Ensure that proposed land uses are compatible with existing land uses and in keeping with the character of the area.	N/A	N/A
3.1.2. Land Use Management Policies and Objectives (cont)	Objective LU 15 – Development Densities Ensure that the density of new development is appropriate to the land use zone and site context, is in keeping with the development pattern of the area, does not unduly impact on the amenities of the area and that it results in a positive relationship between existing developments and any adjoining public spaces. The development of higher density development shall be promoted in appropriate locations, such as suitable	N/A	N/A

	<p>sites within the town centre and adjacent to public transport facilities, where such development is compatible with the built and natural heritage, urban design objectives, infrastructure capacity and environmental considerations. The density of developments will generally be in accordance with the guidance set out under DM Guideline LU1, although the Planning Authority may consider higher density developments where this is considered appropriate to secure the urban design or other objectives of the plan.</p>		
<p>3.1.2. Land Use Management Policies and Objectives (cont)</p>	<p>Objective LU 16 – Residential Densities Promote a range of residential densities within the plan area appropriate to the prevailing development pattern, supporting infrastructure, urban character and heritage resources in accordance with the guidance in ‘Sustainable Residential Development in Urban Areas Guidelines 2009’ (or as updated within the lifetime of this plan). Higher residential densities should be encouraged at locations where it is appropriate to the existing context and density of the plan area, for example around the town centre and within convenient walking distance of public transport facilities, and where it will not unduly impact on built or natural heritage or impact adversely on the integrity of European sites. The density of residential developments will generally be in accordance with the guidance set out under DM Guideline LU1, although the Planning Authority may consider higher residential densities where this is considered appropriate to the context and necessary to secure the urban design or other objectives of the Plan. Development will only be permitted where there is capacity and/or adequate services can be made available.</p>	<p>Habitats such as Alluvial forests, and Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species occupying the aquatic zone (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Changes in nutrient levels in wetlands or water can have an initial positive impact on bird species that feed on water plants, invertebrates and fish. However, eutrophication can cause a shift in the state of an aquatic ecosystem and such a change could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes, invertebrates or fish were later negatively impacted. Raised nutrient levels in waters can also trigger</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of a Flood Risk Assessment and any project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 – European Sites is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p> <p>The inclusion in Objective LU 16 – Residential Densities (Refer to DM Guideline LU1) is acknowledged: Higher residential densities should be encouraged at locations where it is appropriate to the existing context and density of the plan area, for example around the town centre and within convenient walking distance of public transport facilities, and where it will not unduly impact on built or natural heritage or impact adversely on the integrity of European sites. The density of residential developments will generally be in</p>

		<p>algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>accordance with the guidance set out under DM Guideline LU1, although the Planning Authority may consider higher residential densities where this is considered appropriate to the context and necessary to secure the urban design or other objectives of the Plan. Development will only be permitted where there is capacity and/or adequate services can be made available.</p>
<p>3.2.2. Residential Development Policies and Objectives</p>	<p>Policy RD 1 – Residential Development It is the policy of Galway County Council to support the creation of sustainable communities and high quality, well connected and accessible residential areas at appropriate locations, with a range of housing options and adequate support services, facilities and amenities, having regard to the guidance contained in the following policy/guidance documents or any updated/amended versions:</p> <ul style="list-style-type: none"> • Galway County Council's Housing Strategy. • Sustainable Residential Developments in Urban Areas: Guidelines for Planning Authorities, 2009. • Urban Design Manual: A Best Practice Guide – A Companion Document to the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas, 2009. • Architectural Heritage Guidelines for Planning Authorities 2011. • Design manual for Urban Roads & Streets (DMURS), 2013. • Galway Clustered Housing Guidelines, where appropriate, in the assessment of any proposals of new multiple unit housing developments within the Portumna Local Area Plan area. • Galway County Council 	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species occupying the aquatic zone (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Changes in nutrient levels in wetlands or water can have an initial positive impact on bird species that feed on water plants, invertebrates and fish. However, eutrophication can cause a shift in the state of an aquatic ecosystem and such a change could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes, invertebrates or fish were later negatively impacted. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

	<p>Traveller Accommodation Programme.</p> <ul style="list-style-type: none"> • Smarter Travel - A Sustainable Transport Future - A New Transport Policy for Ireland 2009-2020 including the National Cycle Policy Framework 2009-2022 and any other related national documents. • EU Water Framework Directive and The Planning System and Flood Risk Management, Guidelines for Planning Authorities 2009. • Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities, 2007. 		
<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Policy RD 2 – Phased Development on Residential Zoned Lands It is the policy of Galway County Council to encourage orderly, sequential and phased residential development in accordance with the Preferred Development Strategy and the land use management and zoning provisions set out in this Local Area Plan. This shall include a positive presumption in favour of the sequential development of suitably serviced Residential (Phase 1) lands in order to align the Local Area Plan with the Core Strategy/Settlement Strategy in the current Galway County Development Plan, subject to compliance with the policies and objectives in this Local Area Plan and the principles of proper planning and sustainable development. There will be a general presumption against residential development on lands zoned Residential (Phase 2) within the lifetime of the Local Area Plan, subject to the exceptions provided for under the Residential Development Objective RD1.</p>	<p>N/A</p>	<p>N/A</p>

<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 1 – Phased Residential Development (Refer to Maps 1A/1B) Support the development of lands designated as Residential (Phase 1) within the lifetime of the Local Area Plan, subject to normal planning, environmental, access and servicing requirements and reserve the lands designated as Residential (Phase 2) for the longer term growth needs of the town. Residential (Phase 2) lands are generally not developable within the lifetime of this Plan, with the exception of the following developments, which may be considered by the Planning Authority within the lifetime of this Local Area Plan subject to a suitable case being made for the proposal:</p> <ol style="list-style-type: none"> 1) Single house developments for family members on family owned lands. 2) Non-residential developments that are appropriate to the site context, any existing residential amenity and the existing pattern of development in the area. 3) Where it is apparent that Residential (Phase 1) lands cannot or will not be developed within the plan period, residential development may be considered in a phased manner on some Residential (Phase 2) lands. 4) Development on Residential – Phase 2 lands will normally only be considered where 50% of the lands in Residential – Phase 1 are committed to development. <p>The above exceptions will be subject to compliance with the Core Strategy in the Galway County Development Plan, the policies and objectives in this Local Area Plan, the principles of proper planning and sustainable development and to meeting</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species occupying the aquatic zone (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Changes in nutrient levels in wetlands or water can have an initial positive impact on bird species that feed on water plants, invertebrates and fish. However, eutrophication can cause a shift in the state of an aquatic ecosystem and such a change could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes, invertebrates or fish were later negatively impacted. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
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	<p>normal planning, environmental, access and servicing requirements. Developments will only be permitted where a substantiated case has been made to the satisfaction of the Planning Authority and the development will not prejudice the future use of the lands for the longer term growth needs of the town.</p>		
	<p>Objective RD 2 – Sequential Development Endeavour to promote the orderly and phased development of residential development in accordance with the principles of the sequential approach as set out in the Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) Guidelines 2009 (or as updated). This shall include a positive presumption in favour of the sequential development of suitably serviced R-Residential (Phase 1) lands emanating outwards from the town core and/or sequential extensions to the existing residential fabric of suitably serviced R-Residential (Phase 1) lands within the LAP boundary, subject to the principles of proper planning and sustainable development and the current County Development Plan. This objective shall not refer to single house build.</p>	N/A	N/A
<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 3 – Quality Housing Environments Encourage the development of sustainable residential communities through the promotion of innovative, high quality building design and appropriate layouts, that prioritise walking, cycling and public transport options and provide for a high level of permeability, accessibility and connectivity to the existing built environment, services and facilities. In this regard, future residential development proposals will be in accordance with the principles set out in the DoEHLG document 'Sustainable Residential Development in Urban Areas 2009' and its</p>	N/A	N/A

	companion document 'Urban Design Manual: A Best Practice Guide for Planning Authorities 2009', or any updated version of these documents published during the lifetime of this Plan and shall also have regard to the design principles as set out in the Design manual for Urban Roads & Streets (2013) (or as updated).		
3.2.2. Residential Development Policies and Objectives (cont)	Objective RD 4 – Housing Options Require that a suitable variety and mix of dwelling types and sizes are provided in developments to meet different needs, having regard to demographics and social changes, social inclusion, life time changes, smaller household sizes, lower formation age, immigration, etc including the provision for the older persons, for people with disabilities and other special need households.	N/A	N/A
3.2.2. Residential Development Policies and Objectives (cont)	Objective RD 5 – Apartment Development Facilitate the development of apartments at appropriate locations, such as in the town centre, and have regard to the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (or as updated), the Sustainable Residential Developments in Urban Areas: Guidelines for Planning Authorities (2009) and Urban Design Manual: A Best Practice Guide – A Companion Document to the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009) in the assessment of this type of development.	N/A	N/A
3.2.2. Residential Development Policies and Objectives (cont)	Objective RD 6 – Open Space in Residential Areas Ensure the provision of adequate areas of high quality, safe and overlooked open space within residential developments and support the provision of play and recreational areas in all new large residential developments.	N/A	N/A

<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 7 – Social and Specialist Housing Require that a minimum of 12% of all new eligible residential sites are set aside for the development of new social and specialist units, unless addressed through suitable alternative arrangements by agreement with the Planning Authority, in accordance with the Galway County Housing Strategy and Part V provision of the Planning & Development Act 2000 (as amended) and any subsequent amendments to Part V provision to reflect Government policy.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 8 – Traveller Accommodation Support the provision of adequate accommodation facilities for the traveller community in accordance with the Galway County Council Traveller Accommodation Programme 2014 - 2018, or any updated version of this document.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.2.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 9 – Compatible Development Facilitate the development of appropriate, compatible uses within residential areas, subject to ensuring that an adequate amount of residential zoned lands are retained and can be developed for residential uses to meet the growth needs of the town within the plan period. Non-compatible uses include those uses that may generate large amounts of traffic, emissions, pollution, noise, odour, etc., or uses that can impact negatively on residential amenity.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.1.2. Residential Development Policies and Objectives (cont)</p>	<p>Objective RD 10 – Other Residential Development There shall be a general presumption in favour of the development of nursing homes and retirement facilities and community/day care centres on residential zoned lands, community facilities zoned lands or adjacent to the established town centre or as suitable re-use for protected structures or other buildings (e.g.</p>	<p>N/A</p>	<p>N/A</p>

	institutional or educational buildings) that would have limited re-development potential given their size and architectural character, subject to normal planning, environmental, access and servicing requirements.		
3.1.2. Residential Development Policies and Objectives (cont)	Objective RD11 – Connectivity Between Phased Residential Lands Ensure that any development proposals for the R- Residential (Phase 1) lands consider and provide for both vehicular, pedestrian and cycle access, as appropriate to any adjoining R- Residential (Phase 2) lands. Provision should also be made in development proposals for green space linkages between both the R- Residential (Phase 1) lands and the R- Residential (Phase 2) lands in these areas, as appropriate (Refer to Map 2A/2B)	N/A	N/A
3.1.2. Residential Development Policies and Objectives (cont)	Objective RD12 – Reservation of Access Points to Residential & Other Lands Reserve the access points as indicated on the Specific Objectives Map, and any other access points that may be identified for reservation by the Planning Authority during the Plan period, to ensure adequate vehicular, pedestrian and cycle access to back lands and to ensure connectivity and accessibility to lands with limited road frontage. (See Objective TI 10 & Refer to Map 2A/2B)	N/A	N/A
3.3.2 Social and Community Development Policies and Objectives	Policy SI 1 – Social Inclusion and Universal Access It is the policy of Galway County Council to support the principles of social inclusion and universal access, to ensure that all individuals have access to goods, services and buildings, in order to assist them to participate in and contribute to social and cultural life within Portumna.	N/A	N/A
3.3.2 Social and Community Development Policies and Objectives	Objective SI 1 – Social Inclusion Support, as appropriate, the implementation of the provisions of the Galway County Council Social Inclusion	N/A	N/A

<p>Objectives (cont)</p>	<p>Action Plan 2010 and Social Inclusion Work Programme 2011, the County Galway Local Authorities Disability Action Plan 2007 – 2015, the Galway Age Friendly Strategy 2014 – 2019, Galway County Integration and Diversity Strategy 2013 – 2017, Galway Traveller Interagency Strategy, Celebrating Diversity Plan for the Development of LGBT Services & Supports in Galway City & County 2012 – 2015, the National Positive Ageing Strategy and any subsequent updates to these documents.</p>		
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective SI 2 – Universal Access Ensure that housing developments, community facilities, public spaces, public roads, public footpaths and transport services give due consideration to the needs of disabled or mobility impaired people and the requirements of the Disability Act 2005, the Council's Disability Action Plan 2007-2015, and Traffic Management Guidelines 2003 (and any subsequent reviews/updates to these documents).</p>	<p>N/A</p>	<p>N/A</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Policy CF 1 – Community Facilities and Amenities It is the policy of the Council to support the provision of an adequate level and equitable distribution of community facilities and amenities in the plan area that:</p> <ul style="list-style-type: none"> • Meets the needs of the local community as they arise and as resources permit. • Are located in appropriate, accessible locations to serve the residential population in the plan area. • Are clustered or linked together wherever facilities and amenities are complementary and it is practicable to do so, to allow for shared and multi-purpose use of facilities. 	<p>N/A</p>	<p>N/A</p>

<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 1 – Lands for Community, Recreation & Amenity Facilities Ensure that there are adequate lands zoned and services to cater for the establishment, improvement or expansion of educational, community, recreation and amenity facilities within the plan area, and allow for existing community facilities to expand on adjoining lands used for such uses.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 2 – Educational Facilities Support the provision of adequate educational facilities for the local community including primary, post-primary and other training facilities, in order to meet the needs of the widest range of residents within Portumna and its environs.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon)</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is</p>

		<p>SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 3 – Childcare Facilities Facilitate and promote the development of childcare facilities in suitable locations and in accordance with national policy and the Department of the Environment, Heritage and Local Government’s document ‘<i>Childcare Facilities-Guidelines for Planning Authorities</i>’ 2001, (or any updated/amended version of this document).</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 4 – Health Services Seek to facilitate the continued improvement and expansion of health and medical care facilities within Portumna in a planned and co-ordinated way by seeking to accommodate projects that assist in providing health and medical facilities, together with their necessary support services and developments, as well as their infrastructural requirements.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at</p>

		<p>the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 5 – Recreation and Amenity Open Spaces Protect existing recreation and amenity open spaces from inappropriate development, so as to maintain their attractiveness and role in enhancing the amenity and overall character of Portumna and facilitate the development of open spaces and civic spaces at suitable locations within the plan area.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 6 – Sports, Play and Exercise Facilities Support the provision of new sports, play and exercise facilities to service the needs of the local community, require the provision of play/exercise facilities in new large residential developments, and facilitate the development of same in other appropriate locations in the town, including supporting public/community initiatives to provide same.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 7 – Community, Recreation and Amenity Facilities Retain existing facilities and lands zoned for such uses, and prevent their change of use or redevelopment, unless it can be clearly demonstrated that the facility/lands are no longer required and that the new use or development contributes to the overall community needs and recreation and amenity needs of Portumna.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Relatively large development such as schools could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 8 – Amenity Network Support the establishment of an accessible and sustainable network of greenway linkages and amenities that provide safe and attractive circulation routes for pedestrians and cyclists for the enjoyment and recreational use of the entire community. This network should link together community facilities, amenities and built heritage features in the plan area and surrounding areas. Galway County Council will subject to compliance with the</p>	<p>Development in riparian zones or areas with hydrological connectivity to the River Shannon or Lough Derg could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion in Objective CF 8 – Amenity Network is acknowledged: Galway County Council will subject to compliance with</p>

	<p>Habitats Directive seek to promote the functioning of greenway networks as wildlife corridors and habitats to enhance the biodiversity and the natural environment.</p>	<p>such as hydrocarbons entering the river systems during construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Lough Derg SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>the Habitats Directive seek to promote the functioning of greenway networks as wildlife corridors and habitats to enhance the biodiversity and the natural environment.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.3.2 Social and Community Development Policies and Objectives (cont)</p>	<p>Objective CF 9 – Riverside Networks Encourage and support the sustainable development of riverside walkways and cycleways throughout the plan area where feasible and incorporate same into the development of adjoining lands of the marina, streams, woods and the demesne of Portumna Castle, as appropriate. Any potential impacts on natural heritage and designated conservation areas arising from such networks will be duly considered in accordance with the Habitats Directive as part of any proposal.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Development in riparian zones could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems during construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Lough Derg SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion in Objective CF 9 – Riverside Networks is acknowledged: Any potential impacts on natural heritage and designated conservation areas arising from such networks will be duly considered in accordance with the Habitats Directive as part of any proposal.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p>

		<p>species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.4.2 Economic Development Policies and Objectives</p>	<p>Policy ED 1 – Economic Development It is the policy of Galway County Council to support economic development and employment creation in Portumna through the identification of appropriately located and adequately serviced lands for business and enterprise, retail, industrial, commercial and tourism developments, the promotion of investment in transportation and other support infrastructure and the creation of a high quality environment to encourage economic investment. The promotion of economic development and employment creation will be appropriately guided to ensure the protection of residential amenities, built and natural heritage, landscape/townscape/streetscape character and the vitality and viability of the town centre. Support the aims, objectives and recommendations, where appropriate in the context of Portumna, of the following:</p> <ul style="list-style-type: none"> • Local Economic and Community Plan (LECP) for County Galway 2014. • Galway County Council Economic Development 	<p>N/A</p>	<p>N/A</p>

	<p>Strategy (when prepared).</p> <ul style="list-style-type: none"> Regional Planning Guidelines for the West Region 2010-2022. 		
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 1 – Employment and Economic Development Support the implementation of the Economic Development Strategy in the Regional Planning Guidelines for the West Region 2010-2022 (or as updated) and the economic development and tourism policies and objectives as set out in the Galway County Development Plan and any Economic Strategy prepared by Galway County Council.</p>	N/A	N/A
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 2 – Business/Enterprise and Industrial Development Facilitate and encourage the establishment of business/enterprise, technology and industry uses that are considered compatible with surrounding uses on suitably zoned and serviced sites. Where such uses are developed adjacent to residential areas or community facilities, buffer zones shall be provided as well as adequate screening, in the form of planting and landscaping, as appropriate. The Business and Enterprise (BE) and Industrial (I) zonings will be the primary focus for such uses, subject to the guidance provided in DM Guideline LU2 – Land Use Zoning Matrix.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Development in riparian zones could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems during construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Lough Derg SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 3 – Retail Development Support the development of appropriate types, scales and patterns of retail development in suitable locations within the town and with high quality designs that:</p> <ul style="list-style-type: none"> Comply with the <i>Guidelines for Planning Authorities Retail Planning 2012</i> (and any updated/superseding document), including the need for a sequential approach to retail development, the policies and objectives of any future Retail Strategy for Galway that may be adopted within the lifetime of this Local Area Plan and the guidance as set out in the <i>Retail Design Manual – A Good Practice Guide Companion Document to the Guidelines for Planning Authorities Retail Planning (2012)</i>. Support the vitality and viability of the existing town centre and associated main streets and ensure that new development does not undermine their vitality and viability; Protect investment in strategic roads and infrastructure and that are easily accessible, particularly in terms of public transport; Contribute to the creation of a high quality retail environment; <p>The Town Centre (C1) zoning will remain the primary focus for the location of new retail development.</p>	<p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Development in riparian zones could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems during construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Lough Derg SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g.Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

	<p>The Planning Authority will ensure that the location of future retail development is consistent with the key policy principles and order of priority as set out in the <i>Retail Planning Guidelines 2012</i> (and any updated/superseding document) and will require Retail Impact Assessments, including details of the sequential approach, Design Statements and Transport Impact Assessments, where appropriate, for retail developments in accordance with the Retail Planning Guidelines, the Retail Design Manual and DM Guideline ED1 and ED2.</p>		
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 4 – Visual Quality Working Environments Encourage the provision of high quality designs (including variations in design and scale), layout, boundary treatment and arrival views of development within Industrial (I), Business and Enterprise (BE), Town Centre/Commercial (C1) and Mixed Use/Commercial (C2) zones in order to positively contribute to the character and visual amenity of the area.</p>	N/A	N/A
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 5 – Town Centre Viability, Vitality and Vacancy Ensure a balance of development in the retail core of Portumna town so as to ensure that the main streets, St. Brendan’s Street, Clonfert Avenue and St. Patrick’s Street are revitalised, retail/commercial vacancies rates are reduced and that an unbalanced retail pull away from this area is avoided.</p>	N/A	N/A
<p>3.4.2 Economic Development Policies and Objectives (cont)</p>	<p>Objective ED 6 – Brownfield Development and Vacancy Encourage the redevelopment of existing brownfield sites within the plan area in order to maximize the sustainable regeneration of underutilised/vacant lands and/or buildings for potential commercial, retail and residential developments.</p>	<p>Development with biological or hydrological connectivity with Lough Derg could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Increased demands on the WWTP within the LAP area could</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network</p>

		<p>also result in an increase of nutrients in the Lake system.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to the Middle Shannon Callows SPA or Lough Derg (Shannon) SPA.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, e.g. Wigeon which are sensitive to loss of wetland habitat and Whooper swan which are sensitive to changes to wetland structure and distribution.</p>	<p>and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
3.4.2 Economic Development Policies and Objectives (cont)	<p>Objective ED 7 – New Industrial & Business and Enterprise Development Ensure that any new industrial or business and enterprise development shall demonstrate the following:</p> <ul style="list-style-type: none"> • A co-ordinated shared access arrangement where applicable • Provision of footpath and cycling links to the town centre • Buildings shall be of a high quality design and materials, particularly along the road edge providing enclosure and strong frontage • Provide appropriate landscaping and usable public spaces • Screened car parking (See Objectives map 2A/2B) 	N/A	N/A
3.4.2 Economic Development Policies and Objectives (cont)	<p>Objective ED 8 – Non Conforming Uses Where existing uses do not conform with the land use zoning objectives or matrix of the plan, the Planning Authority shall facilitate/support their relocation, as appropriate, to more sustainable and appropriately zoned lands.</p>	N/A	N/A
3.4.2 Economic Development Policies and Objectives (cont)	<p>Objective ED 9 – Proliferation of Any Individual Uses Protect and enhance the vitality and viability of the town centre by ensuring that it remains the primary retail, commercial and mixed use centre in the town and prohibiting a proliferation of any individual</p>	N/A	N/A

	use which, in the opinion of the Planning Authority, does not contribute to the vitality and viability of the town centre.		
3.5.2 Tourism Policies and Objectives	Policy T 1 - Tourism Promotion & Recreational Amenity Provision Seek to maintain the status of Portumna as a popular place to live and visit, by striving to preserve the attributes and assets of the town that make it unique and by endeavouring to enrich the inhabitant/visitor experience by contributing positively towards enhancing the overall amenity, ambience and aesthetic of the town.	N/A	N/A
3.5.2 Tourism Policies and Objectives (cont)	Objective T 1 - Tourism Infrastructure & Services (Refer to Objective DS 9 also) Provide where feasible, and support the provision of tourism infrastructure and services including, walking, cycling and water based infrastructure and short-term guest accommodation facilities throughout the settlement in appropriate locations.	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	
<p>3.5.2 Tourism Policies and Objectives (cont)</p>	<p>Objective T 2 – Sustainable Tourism Development Encourage and assist the sustainable development of the tourism potential of Portumna, Lough Derg and the River Shannon in a manner that respects, builds on, protects and enhances the cultural, built and natural heritage of the town and the local amenities within the Plan area. Key projects/initiatives that will be supported will include:</p> <ul style="list-style-type: none"> a) The EU Territories of Rivers Action Planning (TRAP) in the semblance of the Lough Derg Marketing Strategy Group, Life At The Lake 'A Roadmap for Experience Development and Destination Marketing 2014 – 2017'. b) Waterways Ireland 'Mid Shannon and Lough Ree Project Development Study' 2010. 	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

<p>3.5.2 Tourism Policies and Objectives (cont)</p>	<p>Objective T 3 - Outdoor Pursuits (Refer to Objective DS 9 also) Support the provision and augmentation, of sporting, sailing, boating, kayaking and angling facilities, pier and marina development, pony trekking routes, golf courses, adventure centres and associated ancillary uses throughout the settlement in appropriate locations.</p>	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.5.2 Tourism Policies and Objectives (cont)</p>	<p>Objective T 4 – Enhancement of swimming facilities at Portumna Quay Facilitate the enhancement of bathing/swimming facilities and improvement works to the swimming area at Portumna Quay, as appropriate. (Refer to Maps 2A/2B Specific Objectives)</p>	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>An increase in artificial surfaces could result in</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p>

		<p>increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as Common Tern and Black-headed Gull.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.5.2 Tourism Policies and Objectives (cont)</p>	<p>Objective T 5 – Holiday home developments (Refer to Objective DS 9 also) Encourage the proportionate development of individual and multiple holiday home development schemes within existing adequately serviced sites/lands within the town.</p>	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to</p>	<p>Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.	
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Policy ST 1 – Sustainable Transport, Walking and Cycling It is the policy of Galway County Council to promote the use of public transport, walking and cycling as safe, convenient and environmentally sustainable alternatives to private transport and to implement the key goals, policy guidance and relevant actions set out in the Department of Transport’s policy document Smarter Travel: A Sustainable Transport Future – A New Transport Policy for Ireland 2009-2020 and the National Cycle Policy Framework 2009-2020 (and any subsequent amendments or updates to these documents), any forthcoming guidance in relation to street design and cycling facilities and any Smarter Travel Plan(s) that may be adopted by Galway County Council.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 1 – Integrated Land Use and Transport Ensure that land use planning is integrated with transportation planning and reduce the need to travel, particularly by private transport, through: <ul style="list-style-type: none"> • Promoting the consolidation of development; • Encouraging intensification and mixed use development along public transport corridors and at public transport hubs and nodes; • Prioritising walking, cycling and public transport within, and providing access to, new development proposals, as appropriate; • Ensuring that land use and zoning are fully integrated with the provision and development of a comprehensive, 	N/A	N/A

	sustainable, efficient, high quality transportation network that accommodates the movement needs of residents, businesses and visitors.		
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 2 – Sustainable Transportation Facilitate any Smarter Travel initiatives that will improve sustainable transportation within the plan area and facilitate sustainable transportation options including public transport, electric vehicles, car clubs, public bike schemes, improved pedestrian and cycling facilities, as appropriate.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 3 – Public Transport Support the provision of improved and enhanced public transport facilities and services, including bus services, stops and shelters and any Rural Transport Initiative services, and all associated ancillary requirements, in consultation with the relevant public transport providers.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 4 – Walking Facilitate the improvement of the pedestrian environment and network so that it is safe and accessible to all, through the provision of the necessary infrastructure such as footpaths, lighting, pedestrian crossings etc. New development shall promote and prioritise walking, shall be permeable, adequately linked and connected to neighbouring areas, the town centre, recreational, educational, residential and employment destinations and shall adhere to the principles contained within the national policy document Smarter Travel: A Sustainable Transport Future – A New Transport Policy for Ireland 2009-2020 and the Design Manual for urban Roads & Streets (2013) (and any updated/superseding version of these documents). Galway County Council will ensure that new lighting in sensitive areas, such as close to water-bodies or stands of	N/A	N/A

	broadleaved trees, will be sensitively designed so as to avoid impacts on foraging bats and other nocturnal wildlife.		
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 5 – Cycling Facilitate the improvement of the cycling environment/network so that it is safe and accessible, through adequate traffic management and the provision of the necessary infrastructure, such as surface treatment, junction treatment, cycle track(s), cycle lane(s), lighting, road crossings etc. New development shall promote and prioritise cycling, shall be permeable, adequately linked and connected to neighbouring areas, the town centre, recreational, educational, residential and employment destinations and shall adhere to the principles contained within the national policy documents Smarter Travel A Sustainable Transport Future 2009-2020, and the National Cycle Policy Framework 2009-2020 and the Design Manual for Urban Roads and Streets (2013) (and any updated/superseding version of these documents).	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 6 – Bicycle Parking Seek to provide adequate levels of bicycle parking throughout the plan area, in accordance with the standards as set out in the current Galway County development Plan, or as varied/updated and ensure that new private developments provide safe, secure and sheltered bicycle parking facilities.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 7 – Walking and Cycling Strategy Support the implementation of the Portumna to Ballinasloe/Galway city route of the Galway County Council County Walking & Cycling Strategy (2013), as resources permit.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 8 – Pedestrian Crossings Facilitate the provision of pedestrian crossings adjacent to schools, residential areas and at other appropriate locations	N/A	N/A

	within the plan area, as required.		
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 9 – Mobility Management Plans Require Mobility Management Plans for all medium to large scale residential, commercial, mixed use or business/enterprise, industrial and technology developments, as appropriate.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 10 – Charging Points for Electric Vehicles Facilitate the provision and delivery of recharging points for electric powered vehicles within public car parks and at other appropriate locations in Portumna for domestic, transition and end of journey type travel.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 11 – Amenity Walking/Cycling Network Support the progressive improvement of the amenity walking/cycling network within Portumna. This shall include existing and enhanced public footpaths along the main streets and the provision of linkages to existing and future schools, cycling routes where possible and amenity corridors linking the town centre, residential areas, community facilities, public amenity areas and public transport areas.	N/A	N/A
3.6.2 Sustainable Transportation Policies and Objectives (cont)	Objective ST 12 – Bus Facilities and Services Support the improvement of bus facilities and services in Portumna, including the following: <ul style="list-style-type: none"> a) Facilitate the upgrading of bus stops and the provision of bus shelters in the town centre and at any other bus stops that may be provided in the future. b) Consult with bus operators regarding the provision of (additional) bus services for Portumna 	N/A	N/A

<p>3.6.3 Roads, Streets and Parking Policies and Objectives</p>	<p>Policy TI 1 – Roads, Streets and Parking It is the policy of Galway County Council to ensure that the road and street network is safe and convenient, that it has adequate capacity to accommodate motorised traffic and non-motorised movements, that it has a high environmental quality with appropriate adjacent development and built form, particularly in the case of urban streets and streetscapes, and that adequate parking facilities are provided to serve the needs of the town. In this regard, the principles, approaches and standards as set out in relevant national policy, including the Spatial Planning and National Roads Guidelines 2012, the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities 2009 and accompanying Urban Design Manual 2009, the Traffic Management Guidelines 2003, the Traffic and Transport Assessment Guidelines 2007, the Design Manual for Urban Roads and streets (2013), the NRA Design Manual for Roads and Bridges as appropriate to the national road network outside areas subject to a reduced urban speed limit (and any updated/superseding version of these documents) and any forthcoming guidelines in relation to street design and cycling facilities shall be applied to new developments, as appropriate.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.6.3 Roads, Streets and Parking Policies and Objectives (cont)</p>	<p>Policy TI 2 – County Development Plan Policies, Objectives & Development Management Standards Including Access onto National and Class II Controlled Roads (Refer to Objective DS 9 also) New developments including developments proposed onto and in proximity to National and Class II Controlled roads shall be assessed, as appropriate, in relation to details including</p>	<p>N/A</p>	<p>N/A</p>

	<p>the provision of a safe means of access/egress, provision of sightlines, car and bicycle parking, loading bay provision, building setbacks from routes/roads etc., and in accordance with the policies, objectives and Development Management Standards set out in the current Galway County Development Plan (or any varied or updated version).</p>		
<p>3.6.3 Roads, Streets and Parking Policies and Objectives (cont)</p>	<p>Objective TI 1 – National Road Network (a) Protect the national road network and safeguard the efficiency, safety, capacity and strategic investment in the N65 national secondary route, having regard to the Spatial Planning and National Roads Guidelines for Planning Authorities 2012.</p> <p>(b) Galway County Council will not normally permit the creation of any additional access points from new development or the generation of increased traffic/intensification from existing accesses onto the N65 where speed limits greater than 60kph apply.</p> <p>(c) Transitional zones – (where national roads on the approaches to or exiting urban areas are subject to a speed limit of 60kph before a lower 50kph is encountered) a limited level of direct access to facilitate orderly urban development may be provided. Any such proposal must be subject to a road safety audit carried out in accordance with the NRA’s requirement and a proliferation of such entrances, which would lead to a diminution in the role of such zones, shall be avoided.</p> <p>(d) There shall be a general presumption against large scale retail proposals located adjacent or close to existing, new or planned national roads and interchanges.</p>	<p>N/A</p>	<p>N/A</p>

	Proposals for large scale developments will be required, where appropriate, to submit Traffic and Transport Assessments to assess the impact of the proposed development and associated traffic movements on the efficiency, safety and capacity of the national road network.		
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 2 – Urban Street Network Support the treatment of the route network within the built areas of the town as urban streets that prioritise the needs of pedestrians, that facilitate cyclists wherever possible and that support public and private transport movements, stopping and parking, as appropriate. In this regard, the principles, approaches, and standards set out in the <i>Design Manual for Urban Roads and Streets 2013</i> (or as updated) shall be applied to new development as appropriate. New developments will be required to facilitate the extension of the urban street network, to provide improved connectivity and permeability, particularly for pedestrians and cyclists, in order to achieve connectivity with the town centre and to promote sustainable transport options.	An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river systems in the construction and operational phases. Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as Common Tern and Black-headed Gull.	Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites. The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged. The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged. The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 3 – Road Schemes/Road Improvements (Refer to Objective DS 9 also) Support the development of appropriately approved schemes/road improvements in and around the plan area.	Appropriately approved schemes will have undergone AA Screening or AA under the requirements of the County Development Plan.	Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites. The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged. The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged. The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is

			acknowledged.
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 4 – Preservation of Routes, Road Upgrades & Infrastructure Provision Prohibit development on lands which are reserved for proposed route corridors and associated buffers and where development would affect a route, line, level or layout of any proposed new roadway.	N/A	N/A
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 5 – Road Safety Audits, Traffic Impact Assessment Require all significant development proposals to be accompanied by a Road Safety Audit and Traffic & Transport Assessment carried out by suitably competent consultants, which are assessed in association with the cumulative impact with neighbouring developments on the road network, in accordance with the requirements contained within the NRA's Traffic and Transport Assessment Guidelines, having regard to Road Safety Audits in the NRA document DMRB HD19/12 Road Safety (including any updated/superseding versions of these documents).	N/A	N/A
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 6 – Noise Require all new proposed development, which is considered noise sensitive within 300m of existing, new or planned national roads or roadways with traffic volumes greater than 8220AADT, to include a noise assessment and mitigation measures if necessary with their planning application documentation. The cost of mitigation shall be borne by the developer. Mitigation measures in order to protect the noise environment of existing residential development will be facilitated or enforced as necessary.	N/A	N/A
3.6.3 Roads, Streets and Parking	Objective TI 7 – Signage on or Visible from National Roads	N/A	N/A

<p>Policies and Objectives (cont)</p>	<p>Avoid the proliferation of non-road traffic signage on and adjacent to national roads outside of the 50-60kph speed limit area, in the interest of traffic safety and visual amenity, in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities (2012). The NRA document Policy and Provision of Tourist and Leisure Signage on National Roads March (2011) (including any updated/superseding versions of these documents) shall also be considered in the assessment of relevant developments.</p>		
<p>3.6.3 Roads, Streets and Parking Policies and Objectives (cont)</p>	<p>Objective TI 8 – Schools Promote and facilitate greater ease of traffic movement and safe routes to schools in partnership with local schools and ensure that schools have a safe drop off/collection facilities for pedestrians, cyclists and vehicles and adequate and appropriately located staff parking.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.6.3 Roads, Streets and Parking Policies and Objectives (cont)</p>	<p>Objective TI 9 – Parking Facilities (Refer to the Galway County Development Plan)</p> <ul style="list-style-type: none"> a) Ensure that existing parking facilities in the town centre are managed appropriately and additional parking facilities are provided in suitable locations within the plan area to serve the needs of the town in accordance with applicable standards and guidelines. Provide disabled car parking facilities at appropriate locations throughout the town and ensure that all new developments have adequate car parking, disabled parking and cycling facilities. Requirements for car parking are contained in the Galway County Development Plan. b) Reserve lands at Clonfert Avenue and Church road for the development of car parking facilities. 	<p>N/A</p>	<p>N/A</p>

	(Refer to Maps 2A/2B Specific Objectives)		
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 10 – Reservation of Access Point for future Residential Development/Backlands Reserve the access points for future development and for the development and access to backlands including those identified on Maps 2A/2B – Specific Objectives and any other access points that may be identified for reservation by the Planning Authority during the plan period, so as to ensure that adequate vehicular, pedestrian and cycle access to backlands, in order to facilitate efficient development of these lands and to ensure connectivity and accessibility to lands with limited road frontage. (Refer to Maps 2A/2B & Objective RD11)	N/A	N/A
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 11 – Access provision to Industrial Park (See Objective ED7 also) Ensure that vehicular access to the land designated for industrial provision to the north of the town is obtained via a solitary communal/shared entrance off the R355 roadway and that adequate landscaping screening is afforded along the site perimeters (perimeter of these lands). (Refer to Maps 2A/2B Specific Objectives)	N/A	N/A
3.6.3 Roads, Streets and Parking Policies and Objectives (cont)	Objective TI 12 - Transport Infrastructure Reservations (Refer to Specific Objectives Map 2A/2B) Protect lands from development that would compromise the future development of any transport infrastructure and associated buffers.	Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss. Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation. Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.	Development will be subject to Appropriate Assessment Screening and if required Appropriate Assessment. Any projects requiring Stage 2 AA will have recourse to the determination of project specific mitigation measures that can be incorporated into the design of the project to avoid significant impacts on the European sites in question while meeting the requirements of the Conservation Objectives for those European sites. The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged. The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.

		<p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Disturbance and habitat loss pose threats to the bird species of the Middle Shannon Callows SPA and/or Lough Derg (Shannon) SPA. Greenways could affect the habitat of summer migrant breeding Corncrake (an SCI species of the Middle Shannon Callows SPA that is listed in Annex I of the Birds Directive), although the recent sites of calling males in the SPA have not been in the Portumna area. Greenways could also be a source of disturbance to wintering waterbirds that may be feeding on land or roosting there. Species that could be affected include Whooper Swan, Wigeon, Black-tailed Godwit, Lapwing and Golden Plover.</p>	<p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives</p>	<p>Policy UI 1 – Water Supply, Wastewater and Surface Water Infrastructure Support Irish Water in the provision and maintenance of adequate wastewater disposal and water supply and the maintenance of the existing surface water drainage infrastructure, in accordance with EU Directives, to service Portumna. This will include satisfactory capacity for public wastewater and a satisfactory quantity and quality of water supply. Sustainable Drainage System approaches and techniques within the plan area shall also be supported.</p>	<p>Portumna Wastewater Treatment Plant receives foul & combined flows from an extensive sewer network which collects discharges from the urban town area. There are a number of pumping stations located throughout the town of Portumna which assist in delivering these flows to the Wastewater Plant for treatment. It is envisaged that some upgrading works to the treatment process and the network will be required to meet future demands of the area.</p> <p>Such development could have alone or in-combination effects on the water quality of Lough Derg.</p> <p>Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the lake system.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water</p>	<p>Appropriate Assessment of any proposed upgrading of the Portumna Treatment Works will be undertaken by Irish Water.</p> <p>The inclusion of Objective UI 3 – Wastewater Disposal is acknowledged: New developments shall only be permitted where it can be clearly demonstrated that they can be serviced and that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect the River Shannon Callows SAC, Lough Derg, North-East Shore SAC and the Middle Shannon Callows SPA and Lough Derg (Shannon) SPA and their respective qualifying interests and special conservation interests.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for</p>

		<p>pollution.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09). However, the ecological effects of changes in nutrient levels within an ecosystem are difficult to predict, initial increases in prey/food availability can be reversed if there is a change of the state of the ecosystem as a whole. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)	<p>Policy UI 2 – Irish Water's Capital Investment Plan & Water Services Strategic Plan Support Irish Water in the implementation of their <i>Capital Investment Plan 2014-2016</i> (and as updated/superseded) and their Water Services Strategic Plan, once in place.</p>	N/A	N/A
3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)	<p>Objective UI 1 – Irish Water & Water and Wastewater Projects Support Irish Water in identifying, prioritising and progressing the implementation of water and wastewater projects in the Portumna plan area, as appropriate.</p>	N/A	N/A
3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)	<p>Objective UI 2 – Water Supply & Water Conservation Ensure that new developments are adequately serviced with a suitable quantity and quality of drinking water supply, promote water conservation to reduce the overall level of water loss in the public supply and require that new domestic developments provide for water supply metering.</p>	N/A	N/A
3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)	<p>Objective UI 3 – Wastewater Disposal New developments shall only be permitted where it can be clearly demonstrated that they can be serviced and that there is</p>	Such development could have alone or in-combination effects on the water quality of Lough Derg.	<p>The inclusion of Objective UI 3 – Wastewater Disposal as above is acknowledged.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network</p>

<p>Objectives (cont)</p>	<p>adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect the River Shannon Callows SAC, Lough Derg, North-East Shore SAC and the Middle Shannon Callows SPA and Lough Derg (Shannon) SPA and their respective qualifying interests and special conservation interests.</p>	<p>Increased demands on the WWTP within the LAP area could also result in an increase of nutrients in the lake system.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p> <p>Threats to the SPA's designated species due to these pollutants are complex. Black-headed gulls and Black-tailed godwits can potentially be positively affected by an increase in prey density (chiefly invertebrates such as insects, annelids and molluscs, small crustacean) due to nutrient loading from WWTPs (EU management action plan Black tailed godwit 07-09). However, the ecological effects of changes in nutrient levels within an ecosystem are difficult to predict, initial increases in prey/food availability can be reversed if there is a change of the state of the ecosystem as a whole. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	<p>and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)</p>	<p>Objective UI 4 – Connections to the Public Sewer & Public Water Mains Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect all waters in the plan area, and also to consolidate the urban structure and to control ribbon development along approach roads into Portumna.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.3 Water Supply, Wastewater & Surface Water Policies and Objectives (cont)</p>	<p>Objective UI 5– Surface Water Drainage and Sustainable Drainage Systems Maintain and enhance, as appropriate, the existing surface water drainage system throughout the plan area and ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in new developments. Surface water runoff from</p>	<p>N/A</p>	<p>N/A</p>

	development sites will be limited to pre-development levels and planning applications for new developments will be required to provide details of surface water drainage and Sustainable Drainage Systems proposals, with the developer responsible for the satisfactory disposal of surface water.		
	Objective UI 6 - Wastewater Treatment Plant Buffer Provide and protect a 100 metre buffer around the wastewater treatment plant site. (Refer to Maps 2A/2B Specific Objectives)	N/A	N/A
3.7.3 Water Quality Policies and Objectives (cont)	Policy WQ1 – Water Quality It is the policy of Galway County Council to seek the protection and improvement in water quality in all waters, in conjunction with other agencies and stakeholders in accordance with the EU Water Framework Directive (2006/60/EC), EU Groundwater Directive (2006/118/EC) and other relevant EU Directives, including associated national legislation and policy guidance, (including any superseding versions of same), and to support the implementation of the Shannon International River Basin District Management Plan (as updated), including its Programme of Measures and the actions and measures that form part of the Lough Derg Water Management Unit Action Plan and consider the above when assessing new development proposals	Positive	The inclusion of Policy WQ 1 – Water Quality, Objective WQ 1 – Shannon International River Basin District Management Plan and Protection of Waters, Objective WQ 2 – Groundwater & Aquifers are acknowledged.
3.6.6 Water Quality Policies and Objectives	Objective WQ 1 – Shannon International River Basin District Management Plan and Protection of Waters Support the implementation of the relevant recommendations and measures as outlined in the Shannon International River Basin Management Plan 2009-2015 (or any other such plan that may supersede same during the lifetime of this Local Area Plan). Development shall only be permitted where it can be clearly	Positive	The inclusion of Objective WQ 1 – Shannon International River Basin District Management Plan and Protection of Waters is acknowledged.

	demonstrated that the proposal would not have an unacceptable impact on the water environment, including surface water, groundwater quality and quantity, river corridors and associated wetlands.		
3.6.6 Water Quality Policies and Objectives (cont)	<p>Objective WQ 2 – Groundwater & Aquifers</p> <p>Support the protection of groundwater resources and dependent wildlife/habitats in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010) as amended by the European Communities Environmental Objectives (Groundwater) (Amendment) Regulations 2012 or any other updates. In addition, protect the aquifer that underlays the plan area from risk of environmental pollution and have regard to any groundwater protection schemes and groundwater source protection zones where data has been made available by the Geological Survey of Ireland.</p>	Positive	The inclusion of Objective WQ 2 – Groundwater & Aquifers is acknowledged.
3.7.7 Climate Change, Air Quality & Radon Policies and Objectives	<p>Policy CC 1 – Climate Change & Air Quality Policy</p> <p>It is the policy of Galway County Council to support EU and national legislation and strategies on climate change in its decision making, in order to contribute to a reduction and avoidance of human induced climate change and to assist in achieving the national targets set out under the Kyoto Protocol (as updated).</p>	N/A	N/A
3.7.7 Climate Change, Air Quality & Radon Policies and Objectives (cont)	<p>Objective CC 1 – Climate Change & The National Climate Change Adaptation Framework</p> <p>Galway County Council shall support the National Climate Change Adaptation Framework 2012 (including any superseding document), the actions contained therein and any future local adaptation plan that relates to the plan area.</p>	N/A	N/A

<p>3.7.7 Climate Change, Air Quality & Radon Policies and Objectives (cont)</p>	<p>Objective CC 2 – Climate Change & Green Infrastructure Galway County Council shall promote the integration of green infrastructure/networks (e.g. interconnected networks of green spaces including aquatic ecosystems) and other physical features on land) into new development proposals in order to mitigate and adapt to climate change.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.7 Climate Change, Air Quality & Radon Policies and Objectives (cont)</p>	<p>Objective CC 3 – Air Quality Promote the preservation of best ambient air quality compatible with sustainable development throughout the plan area by seeking to protect and maintain the regulatory standards contained with the EPA's Air Quality in Ireland 2012 Key Indicators of Ambient Air Quality (or any superseding document) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as set out in statutory regulations, namely SI 180/2011 Air Quality Standards Regulations 2011.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.7 Climate Change, Air Quality & Radon Policies and Objectives (cont)</p>	<p>Objective CC 4 – Air Purification Encourage landscaping and deciduous tree planting in an environmentally sensitive manner within the plan area as a means of air purification, the filtering of suspended particles and the improvement of Portumna's micro- climate.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.7 Climate Change, Air Quality & Radon Policies and Objectives (cont)</p>	<p>Objective CC 5 – Radon Galway County Council shall have regard to and implement as appropriate the specific guidance on radon prevention measures for new homes as contained within the Building Regulations.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.9 Flood Risk Management Policies and Objectives</p>	<p>Policy FL 1 – Flood Risk Management It is the policy of Galway County Council to support, in co-operation with the OPW, the implementation of the EU Flood Risk Directive (2007/60/EC), the Flood Risk Regulations (SI No. 122 of 2010) and the DoEHLG/OPW publication The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009</p>	<p>Positive</p>	<p>The inclusion in Policy FL 1 – Flood Risk Management and Assessment is acknowledged.</p>

	and Departmental Circular PL2/2014 (or any updated/superseding legislation or policy guidance). Galway County Council will also take account of the OPW Catchment Flood Risk Management Plans (CFRAMS) as appropriate, the Preliminary Flood Risk Assessment (PFRA), the Strategic Flood Risk Assessment for County Galway 2015 – 2021, the Strategic Flood Risk Assessment carried out for Portumna and any recommendations and outputs arising from same that relate to or impact on the plan area.		
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Policy FL 2 – Principles of the Flood Risk Management Guidelines The Council shall implement the key principles of flood risk management set out in the Flood Risk Management Guidelines as follows:</p> <ol style="list-style-type: none"> 1) Avoid development that will be at risk of flooding or that will increase the flooding risk elsewhere, where possible; 2) Substitute less vulnerable uses, where avoidance is not possible; and 3) Justify, mitigate and manage the risk, where avoidance and substitution are not possible. <p>Development should only be permitted in areas at risk of flooding when there are no alternative, reasonable sites available in areas at lower risk that also meet the objectives of proper planning and sustainable development.</p>	Positive	The inclusion of Policy FL 2 – Principles of the Flood Risk Management Guidelines is acknowledged.
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 1 – Flood Risk Management and Assessment Ensure the implementation of the DoEHLG/OPW publication The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (including its accompanying Technical Appendices) and including the Department of the Environment, Community and Local Government’s Circular PL 2/2014 (or any updated/superseding document) in</p>	<p>Such development could have alone or in-combination effects on the water quality of Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river and lake systems in the construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to Lough Derg.</p>	<p>The inclusion in Objective FL 1 – Flood Risk Management and Assessment is acknowledged:</p> <p>4. Where certain measures proposed to mitigate or manage the risk of flooding associated with new developments are likely to result in significant effects to the environment or European sites downstream, such measures will undergo environmental assessment and Appropriate Assessment, as appropriate.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at</p>

	<p>relation to flood risk management within the Plan Area. This will include the following:</p> <ol style="list-style-type: none"> 1) Avoid, reduce and/or mitigate, as appropriate in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (and as updated), the risk of flooding within the flood risk areas indicated on Map 3A/3B – Flood Risk Management, including fluvial, coastal/tidal, pluvial and groundwater flooding, and any other flood risk areas that may be identified during the period of the Plan or in relation to a planning application. 2) Development proposals in areas where there is an identified or potential risk of flooding or that could give rise to a risk of flooding elsewhere will be required to carry out a Site-Specific Flood Risk Assessment, and Justification Test where appropriate, in accordance with the provisions of The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009, (or any superseding document) and Circular PL2/2014 (as updated/superseded). Any flood risk assessment should include an assessment of the potential impacts of climate change, such as an increase in the extent or probability of flooding, and any associated measures necessary to address these impacts. 	<p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as Common Tern and Black-headed Gull.</p>	<p>the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
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	<p>3) Development that would be subject to an inappropriate risk of flooding or that would cause or exacerbate such a risk at other locations shall not normally be permitted.</p> <p>4) Where certain measures proposed to mitigate or manage the risk of flooding associated with new developments are likely to result in significant effects to the environment or European sites downstream, such measures will undergo environmental assessment and Appropriate Assessment, as appropriate.</p> <p>5) Galway County Council shall work with other bodies and organisations, as appropriate, to help protect critical infrastructure, including water and wastewater, within the County, from risk of flooding.</p>		
<p>3.7.9 Flood Risk Management Policies and Objectives (cont)</p>	<p>Objective FL 2 – Flood Zones and Appropriate Land Uses (Refer to Map 3A/3B)</p> <p>1) Protect Flood Zone A and Flood Zone B from inappropriate development and direct developments/land uses into the appropriate Flood Zone in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (or any superseding document) and the guidance contained in DM Guidance FL 1- Flood Zones and Appropriate Land Uses. Where a development/land use is proposed that is inappropriate within the Flood Zone, then the</p>	<p>Such development could have alone or in-combination effects on the water quality of Lough Derg.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river and lake systems in the construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to Lough Derg.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as</p>	<p>The inclusion in Objective FL 1 – Flood Risk Management and Assessment is acknowledged:</p> <p>4. Where certain measures proposed to mitigate or manage the risk of flooding associated with new developments are likely to result in significant effects to the environment or European sites downstream, such measures will undergo environmental assessment and Appropriate Assessment, as appropriate.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p>

	<p>development proposal will need to be accompanied by a Development Management Justification Test and Site-Specific Flood Risk Assessment in accordance with the criteria set out under with The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 and Circular PL2/2014 (as updated/superseded).</p> <p>2) Ensure that development proposals in areas identified in the plan within Flood Zone C that may be subject to potential flood risk from other sources (e.g. areas of indicative pluvial/groundwater flooding and identified alluvium soil areas) are required to be accompanied by a Site Specific Risk Assessment in accordance with the criteria set out under The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and Circular PL02/2014 (as updated/superseded).</p> <p>For development proposals in all other areas of Flood Zone C, the developer should satisfy him or herself that the level of flood risk is appropriate to the development being proposed. Where, in the opinion of the Planning Authority, the development proposal is of such a scale that flood risk must be considered (e.g. creation of significant areas of new hard standing which could significantly increase run-off), the Planning Authority may request that a site-specific flood risk assessment be carried out in accordance with the criteria set out under The Planning System and Flood Risk Management Guidelines for Planning</p>	<p>Common Tern and Black-headed Gull.</p>	<p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
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	Authorities (2009) and Circular PL 2/2014 (as updated/superseded).		
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 3 – Structural and Non-Structural Risk Management Measures in Flood Vulnerable Zones</p> <p>Ensure that applications to existing developments in flood vulnerable zones shall provide details of structural and non-structural flood risk management measures to include, but not be limited to specifications of the following - floor levels, internal layout, flood resilient construction, flood resistant construction, emergency response planning, access and egress during flood events. (Please Refer to Objective LU 9 & DM Guideline FL 2).</p>	N/A	N/A
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 4 – Flood Risk Assessment for Planning Applications and CFRAMS</p> <p>Ensure that site specific Flood Risk Assessments (FRA) accompany all planning applications in Flood Zones A and B, including those areas indicated on Maps 3A/3B even for developments appropriate to the particular Flood Zone. The detail of the site specific FRAs will depend on the level of risk and scale of development. A detailed site specific FRA should quantify the risks and effects of selected mitigation and the management of residual risks. Galway County Council shall have regard to the results of the findings of the CFRAMS in the assessment of planning applications.</p>	Positive	N/A
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 5 – Strategic Flood Risk Assessment, Flood Risk Assessments and Climate Change</p> <p>Ensure that Strategic Flood Risk Assessments and site specific Flood Risk Assessments consider and provide information on the implications of climate change with regard to flood risk in relevant locations. The 2009 OPW Draft Guidance on Assessment of Potential Future</p>	N/A	N/A

	Scenarios for Flood Risk Management (or any superseding document) shall be consulted with to this effect.		
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 6 – Environmental Impact Assessment/Statement (EIA/EIS) & Flood Risk Assessment</p> <p>Flood risk may constitute a significant environmental effect of a development proposal that in certain circumstances may trigger a sub-threshold EIS, therefore Galway County Council shall ensure that Flood Risk Assessment would form an integral part of any EIA undertaken for projects within the plan area.</p>	Positive	N/A
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 7 – Pluvial, Groundwater Flood Risk and Historic Flood Risk Areas</p> <p>Planning applications on lands identified within pluvial and/or groundwater flood risk and/or areas which have flooded in the past shall be accompanied by a Site Specific Flood Risk Assessment that corresponds with that outlined under Chapter 5 'Flooding and Development Management' of The Planning System and the Flood Risk Management Guidelines for Planning Authorities (2009) (or any updates to same). Such assessments shall be prepared by suitably qualified experts with hydrological experience and shall quantify the risks and the effects of any necessary mitigation, together with the measures needed or proposed to manage residual risks.</p>	Positive	N/A
3.7.9 Flood Risk Management Policies and Objectives (cont)	<p>Objective FL 8 – New and Emerging Data</p> <p>Future amendments to the plan shall consider, as appropriate any new and/or emerging data, including, when available, any relevant information contained in the Flood Risk Management Plans and as recommended in the Strategic Flood Risk Assessment for the plan area.</p>	N/A	N/A

<p>3.7.9 Flood Risk Management Policies and Objectives (cont)</p>	<p>Objective FL 9 – Protection of Water Bodies and Watercourses Protect water bodies and watercourses within the Plan Area from inappropriate development, including lakes, rivers, canals, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include a 10 metre protection buffer from rivers/canal within the plan area, as measured from the near river/canal bank (this distance may be increased and decreased on a site by site basis, as appropriate). In addition, promote the sustainable management and uses of water bodies and avoid culverting or realignment of these features.</p>	<p>A 10m buffer may not be sufficient to safeguard the conservation objectives of a European site and will only be considered in cases where the proposal has been screened for appropriate assessment or appropriate assessment where required.</p>	<p>The inclusion of Objective FL 7 – Protection of Water Bodies and Watercourses is acknowledged:</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.7.9 Flood Risk Management Policies and Objectives (cont)</p>	<p>Objective FL 10 – Improvement &/Or Restoration of Natural Flood Risk Management Functions Prevent the alteration to natural drainage systems and subject to compliance with the Habitats and Birds Directives, Galway County Council will contribute towards the improvement and/or restoration of the natural flood risk management functions of flood plains.</p>	<p>Alteration of the hydrology of flood plains could have alone or in-combination effects on Conservation Objectives of the four European sites considered in this assessment.</p> <p>An increase in artificial surfaces could result in increased levels of storm water along with pollutants such as hydrocarbons entering the river and lake systems in the construction and operational phases.</p> <p>An increase in drainage could also have a negative effect on wetland ecosystems relating to Lough Derg.</p> <p>Changes in water levels could potentially affect the feeding and resting habitats of SPA designated species, i.e. Wigeon, Whooper Swan, Golden Plover, Lapwing and Black-tailed Godwit. Changes in water levels could affect the breeding sites and breeding success of breeding SPA species such as Common Tern and Black-headed Gull.</p>	<p>The inclusion in Objective FL 1 – Flood Risk Management and Assessment is acknowledged: 4. Where certain measures proposed to mitigate or manage the risk of flooding associated with new developments are likely to result in significant effects to the environment or European sites downstream, such measures will undergo environmental assessment and Appropriate Assessment, as appropriate.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.7.11 Waste Management Policies and Objectives</p>	<p>Policy WM 1 – Waste Management It is the policy of the Council to support waste reduction and sustainable waste management through prevention, reduction and recycling and by facilitating the provision of adequate waste infrastructure, such as bring banks, at locations that will not adversely affect residential amenity or environmental</p>	<p>N/A</p>	<p>N/A</p>

	quality.		
3.7.11 Waste Management Policies and Objectives (cont)	Policy WM 2 – Waste Management Plan Support the implementation of the Replacement Connacht Waste Management Plan 2008-2011, Galway County Council's Litter Management Plan 2007-2010, the National Waste Prevention Programme, the EPA's National Hazardous Waste Management Plan 2014-2020 and any superseding versions of these plans over the lifetime of this Local Area Plan.	N/A	N/A
3.7.11 Waste Management Policies and Objectives (cont)	Objective WM 1 – Waste Prevention, Reduction & Recycling Promote the prevention, reduction and recycling of waste in new developments, new development proposals shall be required to submit proposals demonstrating how this is to be achieved and shall seek to ensure on-site provision for waste storage and segregation (bio-waste/dry recyclables/residual waste) pending collection at all new domestic and non-domestic premises.	N/A	N/A
3.7.11 Waste Management Policies and Objectives (cont)	Objective WM 2 – Bring Bank Facility Facilitate the installation of bring bank(s) at suitable locations within the plan area, which do not adversely affect residential amenity or environmental quality.	N/A	N/A
3.7.13 Telecommunications, Energy Infrastructure & Renewable Energy Policies and Objectives	Policy EC 1 – Energy and Communications It is the policy of Galway County Council to support the provision of adequate energy and communications infrastructure to service developments including gas, electricity, broadband, and telephone services. In particular, Galway County Council supports the increased use of renewable energy and the aims of sustainable energy use and conservation in building design and construction.	N/A	N/A

<p>3.7.13 Telecommunication s, Energy Infrastructure & Renewable Energy Policies and Objectives (cont)</p>	<p>Objective EC 1 – Broadband & Telecommunications Facilitate the provision of an adequate telecommunications infrastructure within the plan area, including telephone and broadband services, to the requirements of the relevant service providers and in accordance with the principles of proper planning and sustainable development.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.13 Telecommunication s, Energy Infrastructure & Renewable Energy Policies and Objectives (cont)</p>	<p>Objective EC 2 – Electricity & Gas Supply Facilitate the provision of an adequate supply of electricity and gas to developments in the plan area, to the requirements of the relevant service provider, and in accordance with the principles of proper planning and sustainable development.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.13 Telecommunication s, Energy Infrastructure & Renewable Energy Policies and Objectives (cont)</p>	<p>Objective EC 3 – Energy Conservation & Efficiency New buildings shall be sustainable in their siting, orientation, design and construction. Passive solar design techniques, high energy efficiency, low impact construction methods and the use of local building materials shall be encouraged to ensure that new developments minimise the environmental impacts and long term costs.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.7.13 Telecommunication s, Energy Infrastructure & Renewable Energy Policies and Objectives (cont)</p>	<p>Objective EC 4 – Renewable Energy Promote and facilitate the development of renewable sources of energy within the plan area and encourage the integration of micro-renewable energy sources into the design and construction of new developments, as appropriate.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.8.2 Urban Design and Landscape Policies and Objectives</p>	<p>Policy UD 1 – Urban Design and Landscape It is the policy of Galway County Council to promote the use of sustainable urban design principles and approaches that will help to create high quality built and natural environments appropriate to the context and landscape setting of the town, having regard to the guidance contained in the Sustainable Residential Development in</p>	<p>N/A</p>	<p>N/A</p>

	<p>Urban Areas Guidelines 2009 and the accompanying Urban Design Manual 2009 & the Design Manual for urban Roads & Streets 2013 (including any superseding guidance documents). This will focus on the development of a high quality, well landscaped and appropriately scaled built environment with a strong civic and commercial core, responsive building frontages, appropriate building forms, heights, designs and materials and high quality civic, community, recreational and amenity facilities. The creation of a high quality natural environment will also be supported through the protection of the landscape sensitivities, views and prospects in the town and the promotion of the development of a green network and high quality landscaping.</p>		
<p>3.8.2 Urban Design and Landscape Policies and Objectives (cont)</p>	<p>Objective UD 1 – High Quality, Context Sensitive Design Ensure that new developments are responsive to their site context and in keeping with the character, amenity, heritage, environment and landscape of the area. New development proposals will be required to complement the existing character of the town centre/area in terms of scale, height, massing, building line, urban grain and definition and through high quality design proposals for buildings/structures/shop fronts, the use of high quality, appropriate materials and the provision of appropriate signage, lighting, landscaping proposals and other such details.</p>	N/A	N/A
<p>3.8.2 Urban Design and Landscape Policies and Objectives (cont)</p>	<p>Objective UD 2 – Public Spaces and Streets Promote the development of high quality public spaces consisting of streets, squares, parks and amenities connected by a network of pedestrian and cycling routes. Public spaces should have a high standard of design and street furniture that will create a coherent character for the area. This would include appropriately</p>	N/A	N/A

	designed and located park benches, bus shelters, cycle storage facilities, refuse bins, signage, street sculpture, etc. but should avoid the over-proliferation of different elements and/or cluttering of public spaces.		
3.8.2 Urban Design and Landscape Policies and Objectives (cont)	Objective UD 3 – Spatial Definition and Animation Ensure that new developments are designed to provide spatial definition and animation to public spaces and streets through the use of appropriate building lines and built forms, responsive building frontages and passive surveillance and high quality streetscapes and/or landscaping edges to enclose and address public spaces. Perimeter block typologies provide a useful approach in generating good spatial definition, adequate enclosure and a high quality public realm and the creation of focal points, such as landmark buildings and gateways, help to improve spatial definition and legibility and will be encouraged in appropriate locations.	N/A	N/A
3.8.2 Urban Design and Landscape Policies and Objectives (cont)	Objective UD 4 – Green Network and Landscaping (Refer to Objective DS 9 also) Support the sustainable development of a network of amenities, open spaces and natural areas that support biodiversity, that incorporate existing landscape features such as local rivers, streams, trees, stone walls and hedgerows, that provide pedestrian and cycling linkages and active and passive recreation opportunities, that help to structure and provide relief from the built environment and that can provide areas for surface water attenuation and flood risk management.	<p>Development in riparian zones or lakeshore could have alone or in-combination effects on riparian habitats, on the water quality of the River Shannon or Lough Derg or on bird species listed as Special Conservation Interests for SPAs in the Plan area in terms of habitat loss.</p> <p>Habitats such as Alluvial forests, Juniper communities and Limestone pavement are susceptible to habitat loss and/or fragmentation.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Shannon or Lough Derg.</p> <p>Surface water pollution has the capacity to reduce water quality and/or alter the trophic status of Lough Derg in the vicinity of Portumna. Habitats such as Alkaline fens are sensitive to changes in nutrients or base status. Calcareous fens are sensitive to water pollution.</p>	<p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>

		<p>Otters require an adequate food supply which may be affected by water pollution.</p> <p>Pollutants such as hydrocarbons have the potential to affect SPA bird species occupying the aquatic zone (i.e. Cormorant, Tufted Duck, Goldeneye, Common Tern, Whooper Swan, Wigeon, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull). Changes in nutrient levels in wetlands or water can have an initial positive impact on bird species that feed on water plants, invertebrates and fish. However, eutrophication can cause a shift in the state of an aquatic ecosystem and such a change could cause negative impacts on SPA populations of SCI birds if aquatic macrophytes, invertebrates or fish were later negatively impacted. Raised nutrient levels in waters can also trigger algal blooms that can produce substances that are toxic to fish and other animals.</p>	
<p>3.8.2 Urban Design and Landscape Policies and Objectives (cont)</p>	<p>Objective UD 5 – Street-Oriented Development and Responsive Frontages Promote street-oriented development along the urban street network within the built areas of the town and along the approach routes to the town. This will include improved facilities for pedestrians, cyclists and public transport as appropriate and the promotion of high quality building or landscaping edges to these routes. Buildings and spaces should be designed to provide a human scale along street frontages with the use of appropriate building heights and responsive ground floor treatments. Intensive, fine-grained developments will generally be encouraged to provide a diversity of building forms and public spaces.</p>	N/A	N/A
<p>3.8.2 Urban Design and Landscape Policies and Objectives (cont)</p>	<p>Objective UD 6 – Design Statements Require design statements with all large scale or sensitively located development proposals, such as those in close proximity to the Architectural Conservation Area, protected structures, Portumna</p>	N/A	N/A

	<p>Castle Demesne, significant public amenity, elevated positions or visually vulnerable area, and in the case of any other development proposals where this is considered necessary by the planning authority. Design statements should include a site appraisal examining the location, context, landscape/townscape setting, accessibility, features and characteristics of the development site, which should be used to inform the selection of appropriate development forms and design responses and the incorporation and provision of any important landscape features in the layout and design of the development. Design statements should be succinct documents that include both text and supporting graphics demonstrating how the site context and characteristics and design principles, policies and objectives have been addressed in the design and layout of the development proposal.</p>		
<p>3.8.2 Urban Design and Landscape Policies and Objectives (cont)</p>	<p>Objective UD 7 – Landscape Character, Values, Sensitivity and Views/Prospects Protect the landscape character, values, sensitivities, focal points and views in the Plan Area, including those identified in the Galway County Development Plan, included in the Landscape and Landscape Character Assessment for County Galway (2 church towers in Portumna) as shown on Map 2 – Specific Objectives.</p> <ul style="list-style-type: none"> a) Ensure that new developments are responsive to the high and special sensitivity landscapes within the plan area, visually vulnerable areas, elevated areas or locally important townscape contexts. b) Require Visual Impact Assessment for developments with potential to impact on areas of significant landscape character, value or sensitivity, 	<p>N/A</p>	<p>N/A</p>

	<p>including both urban and natural features, such as historic buildings/structures, as appropriate.</p> <p>c) Prohibit development that will block or interfere with a significant view or prospect. Where it is considered that a development may impact on views or prospects, have regard to the significance of any such impact and any appropriate mitigation measures that should be incorporated.</p> <p>(Refer to Maps 2A/2B Specific Objectives & Galway County Development Plan)</p>		
3.8.2 Urban Design and Landscape Policies and Objectives (cont)	<p>Objective UD 8 – Pedestrian connectivity & permeability Preserve the existing pedestrian linkage/footpath network connecting St. Brendan's Street to St. Bridget's road and the associated educational institutes. (Refer to Maps 2A/2B)</p>	N/A	N/A
3.8.2 Urban Design and Landscape Policies and Objectives (cont)	<p>Objective UD 9 – Conservation of stone wall boundary feature along St. Joseph's road Preserve the roadside stone boundary wall feature afforded to a segment of lands along St. Joseph's Road and incorporate same into any proposal for development of these lands. (Refer to Maps 2A/2B & Objective NH10)</p>	N/A	N/A
3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives	<p>Policy HC 1 – Built Heritage It is the policy of Galway County Council to support the conservation of architectural and archaeological heritage in the plan area, including Protected Structures, the Architectural Conservation Area, Recorded Monuments and Places and other important features of architectural or archaeological heritage in the plan area. Galway County Council will ensure the implementation of the legislative, statutory and policy provisions relevant to the</p>	N/A	N/A

	<p>conservation of the built heritage including the following (and any updated/superseding documents):</p> <ul style="list-style-type: none"> • Legislative provisions in the Planning and Development Act 2000 (as amended) and National Monuments Act 1930 (as amended). • Statutory provisions in the Galway County Development Plan, including the Record of Protected Structures. • Policy guidance in Government Policy on Architecture 2009-2015, the Architectural Heritage Protection Guidelines 2004/2011, the Archaeology and Development: Guidelines for Good Practice for Developers. 		
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Policy HC 2 – Cultural Heritage It is the policy of Galway County Council to acknowledge and promote awareness of the origins, historical development and cultural heritage of the town and to generally support high quality developments that relate to local heritage and to ensure that new development respects and is responsive to same.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 1 – Architectural Heritage Ensure the protection and conservation of the architectural heritage in the plan area, in particular by implementing the relevant legislative provisions of the <i>Planning and Development Act 2000</i> (as amended) in relation to architectural heritage and policy guidance contained within the <i>Architectural Heritage Protection Guidelines 2004/2011</i> and the published DAHG & NDA advice series titled <i>Access: Improving the Accessibility of Historic Buildings and Places 2011</i> (or any superseding document).</p>	<p>N/A</p>	<p>N/A</p>

<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 2 – Protected Structures Ensure the protection and sympathetic enhancement of structures included and proposed for inclusion in the Record of Protected Structures (RPS) that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 3 – Architectural Conservation Areas Protect, conserve and enhance the essential character of the Portumna Architectural Conservation Area, through respecting the surviving historic plots and street patterns and through the appropriate management and control of the design, location and layout of new development, alterations or extensions to existing structures, and/or modifications to the setting of the structure and the character of the Architectural Conservation Area.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 4 – Development relating to Protected Structures and Architectural Conservation Areas (ACA's) Ensure that any development, modifications, alterations, or extensions materially affecting the character of a protected structure, or structure adjoining a protected structure, or structure within or adjacent to the Architectural Conservation Area, is sited and designed appropriately and is not detrimental to the character or setting of the protected structure, or the Architectural Conservation Area. This will include the following:</p> <ul style="list-style-type: none"> • Works materially affecting the character of a protected structure or the exterior of a building/structure within an Architectural Conservation Area will require planning permission. • Any works/development carried out to a protected structure or 	<p>N/A</p>	<p>N/A</p>

	<p>the exterior of a building/structure within an Architectural Conservation Area shall be in accordance with best conservation practice and use sustainable and appropriate materials.</p> <ul style="list-style-type: none"> • Works/development within the Architectural Conservation Area shall ensure the conservation of traditional features and building elements which contribute to the character of the area. • New proposals shall have appropriate regard to scale, plot, form, mass, design, materials, colours and function. 		
3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)	<p>Objective HC 5– Energy Efficiency and Traditional Buildings Ensure that measures to upgrade the energy efficiency of protected structures and traditionally built structures/buildings are sensitive to traditional construction methods and use appropriate materials and do not have detrimental impact on the material, aesthetic, visual character or function of the building.</p>	N/A	N/A
3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)	<p>Objective HC 6– Demolition Prohibit development proposals, either in whole or in part, for the demolition of protected structures or structures within the Architectural Conservation Area, save in exceptional circumstances.</p>	N/A	N/A
3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)	<p>Objective HC 7 – Architectural Conservation Area Appraisal and Management Plan Prepare and publish an Architectural Conservation Area Appraisal and Management Plan for Portumna over the lifetime of the plan, to preserve, protect and enhance the character of this area, including the public realm and implement any recommendations arising from same.</p>	N/A	N/A

<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 8 – Vernacular Architecture and Structures of Local Interest Recognise the importance of the contribution of vernacular architecture to the character of Portumna and ensure the protection, retention, and appropriate revitalisation and use of vernacular heritage, including structures of local interest that contribute to the local distinctiveness, built heritage and/or streetscape character and resist the demolition of same.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 9 - Portumna Castle & Demense</p> <ul style="list-style-type: none"> a) Protect, conserve and enhance the character of the historic demesne of Portumna Castle (outlined on Map 2A/2B), through the appropriate management and control of the design, layout and location of new development within or in proximity to same. b) Development proposals shall only be considered where they demonstrate high quality and sympathetic design, where they propose the use of high quality materials and do not negatively impact on the established character and features of the precious landscape. <p>Development proposals within Portumna Castle Demense shall also provide an impact assessment carried out by appropriately qualified personnel on the historic structures and features within the demense, their setting and character and shall demonstrate that any development proposals have been appropriately considered and do not negatively impact on the precious landscape. (Refer to Maps 2A/2B – Specific Objectives)</p>	<p>N/A</p>	<p>N/A</p>

<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 10 – Archaeological Heritage</p> <p>a) Ensure the protection and sympathetic enhancement of archaeological heritage in the plan area, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended), the National Monuments Act 1930 (as amended), and the Archaeology and Development: Guidelines for Good Practice for Developers.</p> <p>b) Ensure that any new development in the immediate vicinity of a National Monument and a Recorded Monument is sensitively designed and sited and does not detract from the Recorded Monument or its visual amenity.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 11 – Archaeological Landscapes</p> <p>Seek to facilitate the identification of important archaeological landscapes in the plan area.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 12 – Protection of Monuments and Places</p> <p>Ensure the protection and sympathetic enhancement of the monuments and places included and proposed for inclusion in the Record of Monuments and Places, as well as any monument that may be designated as a National Monument, together with the integrity of their character and setting, by implementing the relevant provisions of the Planning and Development Act 2000 (as amended) and the National Monuments Act 1930 (as amended) and the <i>Archaeology and Development: Guidelines for Good Practice for Developers</i>. This will include the</p>	<p>N/A</p>	<p>N/A</p>

	<p>protection of Monuments on the list provided by the National Monument Service, Department of Arts, Heritage and the Gaeltacht, which has statutory responsibility in this area.</p>		
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 13 – Archaeological Assessment & Zones of Archaeological Potential (ZAPs)</p> <p>a) Ensure that all planning applications for development within close proximity of Recorded Monuments and Places and any monuments that may be designated as National Monuments, and within Zones of Archaeological Potential are referred to the Department of Arts, Heritage and the Gaeltacht (DAHG) and take account of the archaeological heritage of the area, any advice received from the DAHG and the need for archaeological assessments and, where appropriate, mitigation measures.</p> <p>b) An Archaeological Assessment for such developments within the plan area that include or are proposed to be located at or close to a Recorded Monument, those that are extensive in terms of area (0.5 hectares or more) or length (1 kilometre or more), those that may impact on the underwater environment (riverine) and developments that require an Environmental Impact Statement.</p> <p>National monuments include:</p> <ul style="list-style-type: none"> • National Monuments in the ownership of the state or Local Authority; • Archaeological and architectural 	<p>N/A</p>	<p>N/A</p>

	<p>monuments/sites in the Record of Monuments and Places;</p> <ul style="list-style-type: none"> • Monuments in the Register of Historic Monuments; • Underwater archaeological heritage; • Previously unknown and unrecorded archaeological sites (including subsurface elements with no visible surface remains and potential sites under water in rivers, and can include fish traps, anchorages, bridges, fording points; • Potential sites located in the vicinity of large complexes of sites and monuments; • Present or former wetlands, unenclosed land, and rivers. <p>c) Flood relief works and other development in or adjacent to the rivers and streams in Portumna have the potential to negatively impact on known, potential submerged or buried archaeology and therefore there will be a need for appropriate level of archaeological assessment of any proposed works in these areas.</p>		
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 14 – Underwater Archaeological Sites Protect and preserve the underwater archaeological sites in rivers, lakes, intertidal and sub-tidal locations within the plan area, including forms of underwater archaeology that may await discovery in the waterbodies of Portumna.</p>	<p>N/A</p>	<p>N/A</p>

<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 15 – Cultural Heritage: Local Place Names Protect local place names as an important part of the cultural heritage and unique character of the plan area, and support the use of appropriate names for new developments that reflect the character/heritage of the area and that contribute to the local distinctiveness of the town. Naming of developments will be required to consult with Coiste Logainmneacha Chontae na Gaillimhe, Galway County Council 'Placename Committee' to identify an appropriate name for new developments that reflect the local character and heritage of the area.</p>	<p>N/A</p>	<p>N/A</p>
<p>3.9.2 Built and Cultural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective HC 16 – Irish Workhouse Centre Promote and support the functioning of Portumna Workhouse as the Irish Workhouse Centre and for other tourism enterprise related activities in a sustainable manner that is respectful of the protected status of the site, in co-operation with other agencies and organisations in order to assist its heritage development, local tourism and the local economy. (Refer to Maps 2A/2B - Specific Objectives)</p>	<p>N/A</p>	<p>N/A</p>
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives</p>	<p>Policy NH 1 – Natural Heritage, Landscape and Environment It is the policy of Galway County Council, to support the conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of Natura 2000 sites, the protection of Natural Heritage Areas and proposed Natural Heritage Areas 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</p>	<p>Positive</p>	<p>The inclusion of Policy NH 1 – Natural Heritage, Landscape and Environment is acknowledged.</p>

	<p>built environment. The protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, will be implemented in accordance with relevant EU environmental directives and applicable national legislation, policies, plans and guidelines, including the following (and any updated/superseding documents):</p> <ul style="list-style-type: none"> • EU Directives, including the Habitats Directive (92/43/EEC), the Birds Directive (2009/147/EC codified version of Directive), the Environmental Impact Assessment Directive (85/337/EEC) & EIA Directive (2014/52/EU), the Water Framework Directive (2000/60/EC), the Strategic Environmental Assessment Directive (2001/42/EC) and the Environmental Liability Directive (2004/35/EC). • National legislation, including the Wildlife Acts (1976 – 2012), the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development (Amendment) Act 2010, the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) and the Regulation of the European Parliament and of the Council on the Prevention and management of the Introduction and Spread of Invasive Non-Native Species [2013/0307 (COD)] (adopted by European Council and effective January 		
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	<p>2015).</p> <ul style="list-style-type: none"> • National policy guidelines, including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidelines 2010. • Catchment and water resource management plans, including the Shannon International River Basin Management Plan 2009-2015 (and as updated). • Biodiversity plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's National Biodiversity Plan, the Biodiversity Action Plan for County Galway 2008-2013 and the Biodiversity Guidelines produced by Galway County Council. 		
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective NH 1 – European Sites 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/superseding 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</p>	<p>Positive</p>	<p>The inclusion of Objective NH 1 – European Sites is acknowledged.</p>

	<p>scientific evidence and Appropriate Assessment where necessary, that:</p> <ol style="list-style-type: none"> 1) The plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any Natura 2000 site (either individually or in combination with other plans or projects); or 2) The plan or project will adversely affect the integrity of any Natura 2000 site (that does not host a priority 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 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 adversely affect the integrity of any Natura 2000 site (that hosts a priority 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 of 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 		
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	<p>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.</p>		
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective NH 2 – Protected Habitats and Species Support the protection of protected habitats and species listed in the annexes to the EU Habitats Directive 1992 (92/43/EEC), the Birds Directive (2009/147/EC) and regularly occurring-migratory birds and their habitats, species protected under the Wildlife Acts and the Flora Protection Order. This includes the protection of species such as the barn owl, otter, salmon, brook lamprey and bats and their roosts amongst others, and the maintenance of woodland, hedgerows, tree lines, waterways, ecological networks and corridors that serve as feeding areas, flight paths and commuting routes for bats.</p>	<p>Positive</p>	<p>The inclusion of Objective NH 2 – Protected Habitats and Species is acknowledged.</p>
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective NH 3 – Natural Heritage Areas and Proposed Natural Heritage Areas Protect Natural Heritage Areas and proposed Natural Heritage Areas in accordance with the requirements of the Wildlife Act 1976, the Wildlife (Amendment) Act 2000 and the Planning and Development Act 2000 (as amended). Where a proposed development within the plan area may give rise to likely significant effects on any Natural Heritage Area or proposed Natural Heritage Area an Ecological Impact Assessment or an Environmental Impact Assessment, as appropriate, may be required. (Refer to Maps 2A/2B – Specific Objectives)</p>	<p>Positive</p>	<p>The inclusion of Objective NH 3 – Natural Heritage Areas and Proposed Natural Heritage Areas (Refer to Map 2A/2B) is acknowledged.</p>
<p>3.10.2 Natural Heritage and Biodiversity</p>	<p>Objective NH 4 – Impact Assessments Ensure full compliance with the requirements of the EU Habitats Directive</p>	<p>Positive</p>	<p>The inclusion of Objective NH 4 – Impact Assessments is acknowledged.</p>

<p>Policies and Objectives (cont)</p>	<p>(92/43/EEC), SEA Directive (2001/42/EC) and EIA Directives including 2011/92/EU & 2014/52/EU and associated legislation/regulations, including the associated European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011), European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004-2011, Planning and Development (Strategic Environmental Assessment) Regulations 2004-2011 and the European Communities (Environmental Impact Assessment) Regulations 1989-2011 & European Union (ENVIRONMENTAL Impact Assessment) Planning and Regulations 2014 (or any updated/superseding legislation). Planning applications for proposed developments within the plan area that may give rise to likely significant effects on the environment and/or any designated site may be need to be accompanied by one or more of the following: an Environmental Impact Statement, an Ecological Impact Assessment Report, an Appropriate Assessment Screening Report or a Natura Impact Statement, as appropriate. Ensure that Natura Impact Statements and any other environmental or ecological impact assessments submitted in support of proposals for development are carried out in accordance with best practice methodologies and contain all necessary baseline assessments.</p>		
	<p>Objective NH 5 – Biodiversity & Ecological Networks Support the protection of biodiversity and ecological connectivity within the plan area including woodlands, trees, hedgerows, roadside verge vegetation, rivers, streams, canals, natural springs, wetlands, stonewalls, fens, blanket bog, heath, rock outcrops, geological and geo-</p>	<p>Positive. However, a 10m buffer may not be sufficient to safeguard the conservation objectives of a European site and will only be considered in cases where the proposal has been screened for appropriate assessment or appropriate assessment where required.</p>	<p>The inclusion of Objective NH 9 – Riparian Zones is acknowledged. The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged. The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p>

	<p>morphological systems, other landscape features and associated wildlife, where these form part of the ecological network.</p> <ul style="list-style-type: none"> a) Seek to retain and/or incorporate these natural features into developments, in order to avoid ecological fragmentation and maintain ecological corridors and stepping stones in the context of Article 10 of the Habitats Directive. b) Protect and enhance water quality and ecology of all waters including East Claggernagh Stream, Fairyhill Stream, the River Shannon and the area of Lough Derg in the plan area and their function as ecological corridors, by maintaining the existing banks and channels and ensuring that new developments in the plan area are set back at least 10 metres as measured from the near river bank (this distance may be increased and decreased on a site by site basis, as appropriate). c) Maintain and enhance biodiversity through the appropriate planting of native trees, shrubs and hedgerows indigenous to the area and of Irish provenance in public and private areas and in new developments. d) Seek to prevent the introduction of imported ash trees/plants or other such species into the plan area in line with the Plant Health Directive and any updated legislation. e) Ensure that any new development proposals within or near the 10m buffer are 		<p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
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	adequately assessed, undergo Appropriate Assessment and the preparation of an NIS, should screening show that this is necessary and where the Planning Authority consider that such screening/assessments are required.		
3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)	Objective NH 6 – Water Resources Protect the water resources in the plan area, including rivers, streams, springs, wetlands, surface waters and groundwater quality, 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 Shannon International River Basin Management Plan 2009-2015 (including any superseding document) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). Support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development in the plan area.	Positive	The inclusion of Objective NH 6 – Water Resources is acknowledged.
3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)	Objective NH 7 – Wetlands, Springs, Rivers and Streams Seek to preserve the wetlands of Portumna, identify and protect natural springs, streams/rivers, where possible and ensure that any plans/projects with potential to adversely affect groundwater, springs, streams or rivers, identify the presence of these features and adequately assess the impacts to them. Protect springs identified on Ordnance Survey mapping or any springs newly identified during project assessment, so that they are not impeded.	Positive	The inclusion of Objective NH 7 – Wetlands, Springs, Rivers and Streams is acknowledged.
3.10.2 Natural Heritage and	Objective NH 8 – Environmental Management Area	Positive	The inclusion of NH 8 – Environmental Management Area is acknowledged.

<p>Biodiversity Policies and Objectives (cont)</p>	<p>Ensure that new development proposals on or near the Environmental Management Area that may impact on the Natura 2000 network are adequately assessed, undergo environmental and/or Appropriate Assessment, including the evaluation of cumulative/in combination effects, and any impacts identified can be avoided, reduced and/or mitigated, as appropriate, in accordance with applicable environmental legislation and policy prior to any consent being given.</p>		
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective NH 9 – Riparian Zones Protect the riparian zones of watercourse systems throughout the plan area, recognising the benefits they provide in relation to flood risk management and in relation to the ecological integrity of the watercourse systems. This will include a general 10 metre protection buffer from rivers within the plan area as measured from the river bank, (this distance may be increased and decreased on a site by site basis, as appropriate).</p>	<p>Positive. However, a 10m buffer may not be sufficient to safeguard the conservation objectives of a European site and will only be considered in cases where the proposal has been screened for appropriate assessment or appropriate assessment where required.</p>	<p>The inclusion of Objective NH 9 – Riparian Zones is acknowledged.</p> <p>The inclusion of Objective DS 3 Natura 2000 Network and Habitats Directive Assessment as highlighted at the beginning of this table is acknowledged.</p> <p>The inclusion of Objective DS 9 – Screening for Appropriate Assessment is acknowledged.</p> <p>The inclusion of DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures is acknowledged.</p>
<p>3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)</p>	<p>Objective NH 10 – Trees, Parkland/Woodland, Stonewalls and Hedgerows</p> <p>a) Seek to protect important tree clusters and hedgerow in the plan area, including those identified on the Specific Objectives Map 2A/2B, and ensure that development proposals take cognisance of significant trees/tree stands and seek to retain natural boundaries including stonewall, hedgerow and tree boundaries, where possible.</p> <p>(See Objectives NH14, UD 9 and also Refer to Map 2A/2B) Seek to carry out a tree survey on important tree strands within the plan area by suitably qualified personnel, as</p>	<p>Positive</p>	<p>N/A</p>

	resources permit.		
3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)	Objective NH 11 – Geological and Geomorphological Systems Protect and conserve geological and geomorphological 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 are adequately assessed with regard to their potential geophysical, hydrological, hydro-geological or ecological impacts on the environment.	Positive	N/A
3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)	Objective NH 12 – Control of Invasive and Invasive Alien Species Seek to prevent the spread of invasive, invasive alien species and noxious weeds and require a landscaping plan to be produced for developments near water bodies and ensure that such plans do not include invasive species.	<p>Invasive species have the potential to cause habitat loss and fragmentation which can be considered as direct impacts on European sites.</p> <p>Habitat loss could be considered significant if it resulted in the movement of bird species or abandonment of roosting or nesting sites. An aggressive invasive plant species, for example, that grew on the fringe of the aquatic zone could cause habitat loss for birds like Lapwing, Golden Plover, Wigeon, Whooper Swan and Black-tailed Godwit lost more open wet grassland and swamp habitats that they used for feeding and/or roosting to invasive tall plant species. Other effects of invasive species can be varied and difficult to predict, but could include loss of habitat fringing water bodies due to erosion following damage to banks.</p> <p>Corncrake, Golden Plover, Black-tailed Godwit, Lapwing, Wigeon and Whooper Swan are all susceptible to loss of habitat.</p> <p>Invasive alien species may affect the levels of food available or food availability for SPA bird species in ways that are difficult to predict. For example, the invasive Zebra Mussel (<i>Dreissena polymorpha</i>) is already present in Lough Derg; it has been postulated that, by removing nutrients from the water, this species may counteract the effects of eutrophication, but may also reduce the amount of vegetable and animal food available to SPA bird species. However, the mussels themselves could</p>	The inclusion of Objective NH 12 - Control of Invasive Alien Species is acknowledged.

		constitute a significant food source for some wintering duck species like Tufted Duck and Goldeneye. An aggressive alien aquatic macrophyte (e.g. <i>Lagarosiphon</i>) could provide large amounts of food for bird species (e.g. Whooper Swan, Wigeon, Tufted Duck and Goldeneye) that eat aquatic plants. However, such species can produce such dense growth that access of hunting piscivorous species like Cormorant and Common Tern to fish could be restricted.	
3.10.2 Natural Heritage and Biodiversity Policies and Objectives (cont)	Objective NH 13 – Screening for Appropriate Assessment Ensure that all development proposals are screened to determine whether they on their own or in combination with other plans and projects are likely to have a significant effect on a European site in view of its conservation objectives. Where significant effects are likely or uncertain, an NIS will be required in accordance with the Habitats Directive.	Positive	The inclusion of Objective NH 13 – Screening for Appropriate Assessment is acknowledged.
	Objective NH 14 – Protection of Bats and Bat Habitats Ensure that development proposals in areas recognised as potentially important for bats, including areas of woodland and hedgerows, including those areas identified on Map 2A/2B Specific Objectives , 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. (See Objective NH 10 & also Refer to Map 2A/2B)	Positive	The inclusion of Objective NH 14 – Protection of Bats and Bat Habitats is acknowledged.
3.10.2 Natural Heritage and Biodiversity	Objective NH 15 – NPWS & Integrated Management Plans Galway County Council shall seek to	Positive	The inclusion of Objective NH 15 – NPWS & Integrated Management Plans is acknowledged.

Policies and Objectives (cont)	engage with and support the National Parks and Wildlife Services (NPWS) at their request to ensure integrated Management Plans are prepared for all European Sites within the sphere of influence of the Portumna LAP area and ensure that such plans prioritise achieving the conservation objectives of the European sites, that they are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to the local community.		
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4.5. Interaction with other Plans

The E.C. Habitats Directive and the Irish Habitats Regulations 2011 require that the impacts on European sites be assessed from the plan or project in question and also in combination with other plans and projects that could affect the same Natura 2000 sites.

The screening process identified the plans that could act in combination with the Local Area Plan to pose likely significant effects on Natura 2000 sites in its administrative area and its environs. This Section identifies if the Plans considered have undergone appropriate assessment themselves as it is assumed that if a Plan has been adopted following AA then it cannot pose likely significant adverse effects on Natura 2000 sites.

Following the adoption of the Draft County Development Plan, Local Plans will undergo their own appropriate assessment where necessary and will take into account the cumulative effects at this scale, particularly of projects which can act in-combination and identified at a local scale. The amendments/variations to these Plans will be in accordance with the Policies and Objectives that are described in the County Development Plan. Therefore it is assumed that the amendments/variations themselves will not pose likely significant effects to the Natura 2000 sites. Local Area Plans in County Galway are therefore not predicted to pose cumulative adverse impacts, provided they are in compliance with the County Development Plan.

The cumulative/in-combination impact assessment next focuses on the other County Development Plans that had the highest potential to affect the same European sites that could be affected by the Portumna Local Area Plan. Other higher-level plans that could promote infrastructure are integrated within the County Development Plan and have been assessed as such.

Galway County Development Plan 2015-2021

Potential impacts on the River Shannon Callows SAC, Lough Derg North-East Shore SAC, Middle Shannon Callows SPA and Lough Derg (Shannon) SPA are addressed in the Galway County Development Plan. The County Development Plan has undergone an appropriate assessment under Article 6(3) of the E.C. Habitats Directive. No cumulative impacts are predicted as there are no specific policies promoting development in the Galway County Development Plan that would have in-combination effects.

Offaly County Development Plan 2014-2020

The Middle Shannon Callows SPA and River Shannon Callows SAC are shared by Galway and Offaly. Policies have been assessed as part of a comprehensive appropriate assessment and objectives included in the Offaly CDP to protect these specific sites. As a result there are no predicted cumulative impacts from the implementation of the Local Area Plan.

North Tipperary County Development Plan 2010-2016

The River Shannon and part of Lough Derg forms the county border between Galway and Tipperary and therefore the River Shannon Callows SPA is shared by Galway and Tipperary with hydrological connectivity to the Lough Derg and therefore to the Lough Derg North-East Shore SAC, River Shannon Callows SPA and Lough Derg (Shannon) SPA. Objectives have been included in the Plan relating to the protection of Natural Heritage. Policy Env.1 requires Appropriate Assessment Screening and if required Appropriate Assessment is carried out for any plan or project which, individually, or in combination with other plans and projects is likely to have a significant direct or indirect impact on any Natura 2000 site or sites. As a result there are no predicted cumulative impacts from the implementation of this Plan.

Shannon International River Basin Management Plan 2009-2015

The primary objectives of the Shannon RBMP are to protect and enhance surface and groundwater resources and to achieve at least Good Ecological Status in all waterbodies by 2015.

The Shannon IRBMP has been subject to Appropriate Assessment and various mitigation measures are included in that Plan with regard to achieving good status water quality. Many of the measures included mirror those of the Portumna LAP, e.g. where replacement or upgrading of a treatment plant is required, AA would be required if this would involve building of a new plant or an extension to an existing plant and where relocation the point of discharge would be required, that AA would be required and ‘should show that the relocation will not negatively impact on protected areas’. There would be no risk of significant “in combination” effects with Draft Local Area Plan.

4.6. Summary of Policies protecting Natura 2000 Sites

A summary of the Policies and Objectives which act cumulatively to protect the individual Natura 2000 sites is presented in Table 4.3 below.

Table 4.3. Policies and Objectives protecting European sites and supporting Article 10 habitats and species.

Site	Sensitivity/Threats	Mitigation – Policy/Objective
River Shannon Callows SAC	Disturbance from development on Water quality and Habitats	Objective DS 3 Natura 2000 Network and Habitats Directive
Lough Derg North-East Shore SAC		Objective DS 9 Screening for Appropriate Assessment
Middle Shannon Callows SPA		Objective LU 13 – Constrained Land Use Zone (CL)
Lough Derg (Shannon) SPA		Objective LU 16 – Residential Densities (Refer to DM Guideline LU1)
		Objective CF 8 – Amenity Network
		Objective CF 9 – Riverside Networks
		Objective UI 3 – Wastewater Disposal
		Objective FL 1 – Flood Risk Management and Assessments
		Objective FL 7 – Protection of Water bodies and Watercourses
		Policy NH 1 – Natural Heritage, Landscape and Environment
		Objective NH 1 – European Sites
		Objective NH 2 – Protected Habitats and Species
		Objective NH 8 – Environmental Management Area
		Objective NH 9 – Objective NH 9 – Riparian Zones
		Objective NH 12 – Control of Invasive and Invasive Alien Species

With regard to mitigation measures the inclusion of **DM Guideline NH 2 – Conservation Management Plan/Environmental Operating Plan & Project Specific Mitigation Measures** is acknowledged:

Project specific mitigation measures may be included in a Construction Management Plan (CMP) or an Environmental Operating Plan (EOP) and will be commensurate to the level of impact predicted and determined to be successfully employable with regard to the Conservation Objectives of the European sites in question.

The CMP or EOP may be required to present information on mitigation in terms of:

- 1) Evidence of how these will be secured and implemented and by whom;
- 2) Evidence of the degree of confidence of their likely success;
- 3) Timescale, relative to the plan or project, for their implementation or completion;
- 4) Evidence as to how the measures will be monitored and, should mitigation failure identified, how that failure will be rectified.

4.7. Responsibilities for implementing mitigation policies

The responsibility for implementing the Portumna Local Area Plan lies solely with the Planning Authorities through the Planning consent process. Applicants who intend to develop within the Portumna Local Area Plan Administrative Area are obliged to ensure that their application is consistent with the Policies and Objectives within the Local Area Plan. Applicants must provide information to allow the Planning Authorities to screen the application and decide if Stage 2 AA is required.

4.8. Monitoring the Implementation of Policies

Whilst there is no legal requirement to monitor the outputs of the AA process, there is an obligation to monitor the implementation of the Local Area Plan through the E.C. SEA Directive as implemented in Ireland. Contingency measures may have to be applied if there is evidence that Policies or Objectives cannot be implemented successfully.

4.9. Conclusion of Stage 2 – Appropriate Assessment

This Natura Impact Report records the decisions that were taken during the preparation of the Portumna Local Area Plan 2016.

It determines that, assuming the successful implementation of those Policies and Objectives listed in the Plan which specifically address development and control, where potential impacts on the European sites were considered, there will be no likely significant effects on the Conservation Objectives or overall integrity of those European sites in the Administrative Area of the Plan, either in isolation or in combination with other Plans and Projects acting in the same area.

The process of appropriate assessment will continue as required throughout the preparation period of the Plan. It will be necessary to screen and potentially analyze any amendments to Policies and Objectives as a result of the subsequent stages in the Plan-preparation and to make recommendations if these amendments may lead to likely significant effects on Natura 2000 sites.

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Appendix 1
APPROPRIATE ASSESSMENT SCREENING REPORT
(Draft Rev1)

as required under Article 6(3) of the EU Habitats Directive

of

PORTUMNA LOCAL AREA PLAN 2016-2022

On behalf of Galway County Council



Prepared by: Moore Group – (Environmental Services)



July 2015

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1. Introduction

1.1. General Introduction

The Habitats Directive (Council Directive 92/43/EEC) requires that all land use plans must be screened for potential impact on Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). This process aims to establish whether a full Appropriate Assessment as required by Article 6 of the Directive is required in any particular case.

This report contains information required for the competent authority, in this case Galway County Council, to commence an Appropriate Assessment (AA) process on the effects of the adoption of the Portumna Local Area Plan 2016-2022.

The report assesses the potential for the Plan to impact on sites of European-scale ecological importance. It is necessary that the Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Birds and Natural Habitats Regulations).

1.2. Legislative Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/EEC as codified by 2009/147/EC), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an 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."

Article 6(4): "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the 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 the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

2. Stages of the AA Process

The Commission's methodological guidance (EC, 2002) promotes a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 Appropriate Assessment: In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

In order to ensure that the Plan complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group carried out the screening stage of the Plan on behalf of Galway County Council to determine if Stage 2 AA is required.

2.1. Guidance

The AA has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- 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 Directorate-General, 2001); hereafter referred to as the EC Article Guidance Document.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.

2.2. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth and Bing aerial photography.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopsis; Qualifying Interests and Conservation Objective data,
 - Online database of rare, threatened and protected species,
 - Publicly accessible biodiversity datasets.
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2008).
- Biodiversity Data for County Galway including that collated in the Biodiversity Action Plan for County Galway 2008 – 2013
- Port Omna Beo: Nature & Wildlife Plan 2013-2016
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2014)
- National Biodiversity Data Centre records
- Galway County Development Plan 2009-2015
- GCDP AA Screening Report & Natura Impact Report 2014
- Portumna Local Area Plan (2016) Issues Leaflet

2.3. Consultation

Galway County Council has notified the Department of Arts, Heritage and the Gaeltacht (DAHG) of their intention to commence a review of the Town Development Plan through

the Strategic Issues Paper for the Local Area Plan. The Development Applications Unit was consulted as part of this process and comments received with regard to AA are outlined below.

Ref. FP2015/044

The submission reiterates that the plan must contain objectives for the conservation and protection of the environment. The wording of objectives in the natural heritage section of the plan should reflect or encompass key obligations and requirements as set out in the relevant legislation in relation to the various ecological corridors or natural heritage features.

The Planning Authority is reminded that legislation in Ireland has changed since the last plan was adopted and cognizance should be taken in the context of European sites or Natura 2000 network.

There is suggested wording that should be incorporated into the plan in relation to the text and objectives of the plan in relation to the European sites.

In relation to the NIR and the plan it is suggested that in some limited cases that policies and objectives that contain further projects or lower level plans will be subject to appropriate assessment at a later stage. In other instances development objectives maybe such that potential impact on European Sites cannot be avoided, the impacts on European Sites must be assessed at plan level in the NIR. In addition it must be demonstrated how any mitigation measures, which are specified at plan level, will ensure that no adverse effects on site integrity will result.

It is suggested that the Department is of the view that there is potential for the plan, or services or resources on which the plan area is reliant to have significant effects on European sites in view of the conservation objectives. All potential impacts in relation to development or increased usage or pressures need to be examined and assessed at plan level prior to their inclusion in the plan.

It is stated that the implications of all parts of the plan, including zoning and land use designations and associated maps, strategies or other reports must be examined on their own and in combination with the plan and with other plans and projects. Only those plan elements that are demonstrated to be compliant with the Habitats Directive and Birds Directive should be incorporated into the plan.

It is stated that one of the key benefits of the environmental assessment procedures is that they should influence and inform the plan during its preparation, and integrate ecological and other environmental considerations with the vision, policies and objectives for the future development and growth of the plan area.

The implications of the plan for European sites in view of their conservation objectives must be assessed.

The NIR is the resulting statement of the effects for the purposes of Article 6 of the Habitats Directive and its findings must be taken into account when the appropriate assessment is carried out and a determination is made as to whether or not the land use plan would adversely affect the integrity of a European Site.

It is stated that the appropriate assessment cannot have a lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of a project on a European Site, it is stated that these standards should underpin the NIR.

The appropriate assessment must be carried out prior to the adoption of the plan.

The Department has included 13 points in relation to the preparation of a NIR and what information should be included, the following is a brief summary of this information:

- The need for an NIR follows on from screening. The NIR should not contain the screening exercise;
- The NIR should be a scientific assessment that presents relevant evidence, data and analysis and not just commentary, lists and tables.;
- The best scientific knowledge and objective information which are specified in legislation in relation to screening are also required in the preparation of the NIR;
- The relevant environmental baseline and trends should be taken into account, bearing in mind changes and in combination effects which have occurred since site designations;
- If a NIR is required, it should cover the entire plan, not just parts of the plan;
- The NIR should focus on the likely significant effects of the plan, on its own and in combination with other plans and projects, on European sites in view of their conservation objectives, whether these are generic or site specific;
- An examination of the potential or existing effects of the plan, and the resources and services, on which it is reliant, must be undertaken to identify what European sites, and which of their conservation objectives are potentially at risk. In combination effects of other plans or projects must also be taken into account. This examination is also required to determine a “zone of influence” or “zone of impact” of the plan area. It is noted that a 15km distance for plans in existing guidance is an indicative figure and its application and validity should be examined and justified in each specific case with reference to the nature, size and location of plan area, and the sensitivities of the ecological receptors, and the potential for in combination effects;
- The scientific basis on which site and conservation objectives are included or excluded from assessment and analysis should be presented;
- The scientific basis on which plan policies and objectives and other plan elements are included or excluded from further assessment and analysis should be presented. It is suggested that this should be applied to all parts of the plan and all policies and objectives;
- Where the plan level mitigation measures are put forward the necessary analysis should be presented to demonstrate that these will be effective in avoiding or removing risks of adverse effects on the integrity of European sites, or in managing future proposals where adverse effects maybe unavoidable;
- The NIR and plan level mitigation measures should go beyond altering the wording of objectives to say that future assessment is required;
- All parts of the plan, including zoning and land use zoning designations and associated maps and strategies, should be subject to assessment and should be compliant with the Habitats Directive. In the case of non-statutory strategies or other reports, these may only be incorporated into the plan , or given effect by the plan, if demonstrated to be compliant with Article 6 on

their own and in combination with the plan itself and with other plans and projects;

- The NIR should reach a clear and precise conclusion as to the implications of the plan for the conservation objectives of the relevant European sites.

2.4. Screening Steps

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidance, this AA has been structured as a stage by stage approach as follows:

Screening stage

- Description of the Plan;
- Brief description of the Natura 2000 site(s) potentially affected;
- Conservation objectives of the Natura 2000 site(s);
- Assessment criteria;
 - Likely impacts on Natura 2000 site(s);
 - Cumulative and in combination impacts;
 - Likely changes to Natura 2000 site(s);
 - Elements of the Plan where the impacts are likely to be significant;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified above on site(s) integrity;
- Exclusion of site(s) where it can be objectively concluded that there will be no significant effects; and
- Screening conclusion and statement.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

3. Description of the Plan

3.1. Background

The Portumna Local Area Plan (LAP) 2016-2022 has been prepared by Galway County Council (GCC) to provide a statutory framework for the future growth and development of Portumna. It is consistent with the policies and objectives contained in the Galway

County Development Plan, including the Core Strategy, and seeks to address the needs and requirements of the local community, service providers and other stakeholders. The purpose of the Local Area Plan is to guide future development within the town in a sustainable and equitable manner and to inform members of the public, the local community, stakeholders and developers, of the policies and objectives that will shape the development of the town over the next six years. The policies and objectives for the development of the town include provisions in relation to land use management, community facilities, amenities, transport, infrastructure, urban design, cultural/built heritage, natural heritage and the environment.

The plan period is for 6 years, from the date of adoption by Galway County Council, unless the timeframe is extended by resolution in accordance with Section 12(d) to (f) of the Planning and Development (Amendment) Act 2010. The plan area is comprised of the town and its immediate environs and is considered to provide an appropriate development envelope for the anticipated growth of the town for the plan period. (Figure 3.1).

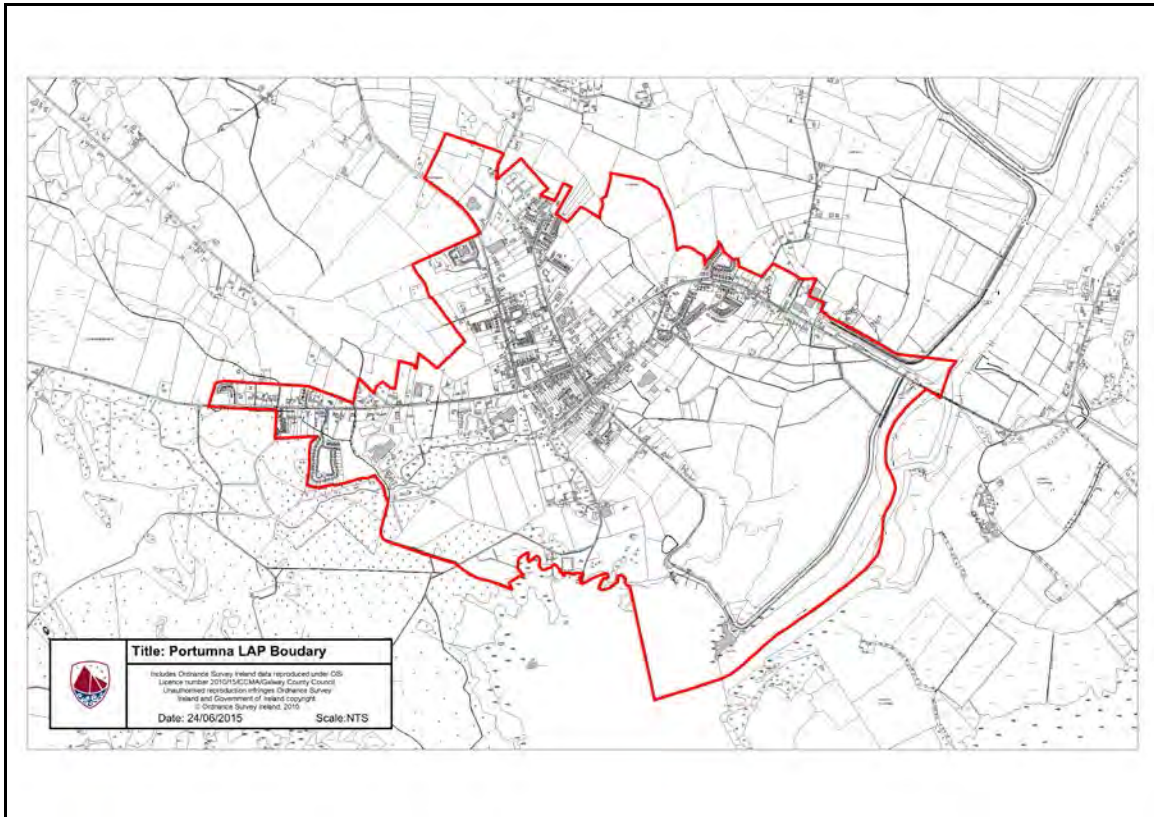


Figure 3.1 Plan area boundary at Portumna, County Galway. (source GCC)

3.2. Structure and Content

The Local Area Plan has been structured into 4 main sections with separate supporting documents:

Section 1	Introduction <ul style="list-style-type: none"> • Preamble • Profile of Portumna • Local Area Plan • Plan Informants and Key Considerations.
Section 2	Strategic Vision and Development Strategy <ul style="list-style-type: none"> • Strategic Vision • Development Strategy
Section 3	Development Policies, Objectives and Guidelines <ul style="list-style-type: none"> • Land Use Management • Residential Development • Social and Community Development • Economic Development • Tourism • Transportation Infrastructure • Utilities, Climate Change & Environmental Management • Urban Design and Landscape • Built Heritage and Cultural Heritage • Natural Heritage & Biodiversity
Section 4	Local Area Plan Maps <ul style="list-style-type: none"> • Map 1A & 1B – Land Use Zoning • Map 2A & 2B – Specific Objectives • Map 3A & 3B – Flood Risk Management

Supporting documents include the Appropriate Assessment Screening Report, the Strategic Environmental Assessment Report and the Strategic Flood Risk Assessment for Portumna which are all available separate to the plan.

3.3. Strategic Vision

The Local Area Plan is underpinned by a strategic vision intended to guide the future growth and development of Portumna in a sustainable manner, achieving the overall objectives set out for the town in the current *Galway County Development Plan* and in a way that reflects the existing character and amenity of the area, the surrounding landscape, heritage, environment and improves the quality of life of residents and the local community.

Strategic Vision

“To promote Portumna as a sustainable, self-sufficient and vibrant town, which maintains its unique character, capitalises on its existing cultural and tourism assets, while offering a pleasant environment for a growing community, for living, shopping, for education, business and recreation. This requires there to be a degree of balance whereby the environmental sensitivities of the area and Portumna Castle and Demesne, Portumna Forest Park and Lough Derg in particular are safeguarded, for present and future generations to come”.

The strategic vision is informed by guiding principles enabling the overall vision to be achieved, these include the following:

- Realising the town’s potential as one of the ‘Key Towns’ as set out in the Galway County Development Plan and attracting the population target established in the Core Strategy up to 2021 and beyond.
- Acknowledging that the medium term growth of Portumna should focus on new sustainable communities and adopt a sequential approach to the zoning of residential lands extending outwards from the centre of the town in line with the Guidelines for Planning Authorities – Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009).
- Reflecting the needs and aspirations of local communities, business and other interested and affected groups, as expressed through the public consultation process.
- Promoting sustainable land use and transport by capitalising on the opportunity presented by the potential to develop walking and cycling opportunities within the town focused around the forest and the river, so that sustainable travel such as walking, cycling and other smarter travel initiatives, along with integrated land use and transportation become central to the development of new neighbourhoods and the future development of Portumna.
- Maintaining and promoting a strong and vibrant town centre which sustains the ability to attract new businesses and meets the retailing and service needs of the town and its surrounding hinterland, in addition to offering a pleasant and attractive environment for shopping, business, tourism, recreation and living.
- Ensuring that there are a range of facilities, amenities and supporting services including educational, recreational, religious, social, community and civic requirements for children, youths, adults and the elderly, to serve a growing community.
- Optimising the potential of the town’s strategic location, in close proximity to the River Shannon and as a service hub to an extensive rural hinterland, through facilitating and fostering appropriate tourism and economic development, through setting a positive and flexible framework, which enhances Portumna as a place for tourism and employment opportunities.

- Supporting the delivery of the necessary infrastructure to facilitate the future growth and sustainable development of the town.
- Protecting the natural assets, environment, built heritage and public realm of the town, including its local character for the benefit of future generations to come.
- Promoting a strong sense of community spirit, civic pride, local identity and social inclusiveness in the locality and establishing a strong local identity that is distinguishable from other areas.

3.4. Natura 2000 Conservation Measures in the Plan

The Development Plan contains numerous measures which will contribute to the conservation of Natura 2000 sites in accordance with the requirements of the Habitats Directive.

3.4.1. Strategic Vision

The Vision Statement for Portumna LAP includes the following:

2.1. Strategic Vision

Protecting the natural assets, environment, built heritage and public realm of the town, including its local character for the benefit of future generations to come.

3.4.2. Development Strategy

In order to achieve the strategic vision for Portumna, it is important to examine a number of different Development Strategy Options to ascertain which option can deliver most effectively on the vision for the town. Continuing with the current plan is not considered an appropriate approach as it would not take account of advances in planning guidance, best practice or recent changes to legislation or EU Directives. Such an approach would also conflict with the Regional Planning Guidelines and the Core Strategy in the current Galway County Development Plan and would therefore not be in accordance with the proper planning and sustainable development of the town.

After an assessment of the development options presented, Option 3 was considered the preferred Development Option.

This option includes a refined plan boundary, providing a more appropriate development envelope and greater certainty to the future growth of the town, including rationalised land use zonings to align with the Core Strategy. It also takes account of the infrastructural capacity within the town, with particular regard to water and wastewater availability and takes cognisance of flood risk areas.

This approach supports the consolidation of development within the plan area, supports sequential development of the remainder of the urban core from the centre outwards and ensures that serviced, residential lands close to the town centre are the primary focus for development in the short to medium term. This in turn will encourage reduced travel

demands, more sustainable transport options and ease of access to community facilities, employment resources and retail and service provision within the town.

Section 2.2.6 Development Strategy Policy and Objectives

Objective DS 3 – European Sites

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/superseding 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 a full Appropriate 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 where*
- 2) The plan or project will adversely affect 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 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 where*
- 3) The plan or project will adversely affect the integrity of any European site (that hosts a priority 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 of 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 10 – Future Developments and EU Directives

Ensure that all future developments within the plan area fully take into account the requirements of the EIA, Habitats, Birds, Water Framework and Floods Directives respectively, as relevant and appropriate.

Section 3.1.2 Land Use Management Policies and Objectives

Objective LU 10 – Environmental Management (EM) (Refer to Map 1A/1B)

Protect lands and sites with high biodiversity value and/or environmental sensitivity and promote their sustainable management and use. This will

include the protection of the integrity of European sites that form part of the Natura 2000 network, in particular Special Areas of Conservation, in accordance with the conservation management objectives of these sites and the requirements of the EU Habitats Directive (92/43/EEC).

Objective LU 16 – Residential Densities

Promote a range of residential densities within the plan area appropriate to the prevailing development pattern, supporting infrastructure, urban character and heritage resources in accordance with the guidance in ‘Sustainable Residential Development in Urban Areas Guidelines 2009’ (or as updated within the lifetime of this plan). Higher residential densities should be encouraged at locations where it is appropriate to the existing context and density of the plan area, for example around the town centre and within convenient walking distance of public transport facilities, and where it will not unduly impact on built or natural heritage or impact adversely on the integrity of Natura 2000 European sites. The density of residential developments will generally be in accordance with the guidance set out under DM Guideline LU1, although the Planning Authority may consider higher residential densities where this is considered appropriate to the context and necessary to secure the urban design or other objectives of the Plan. Development will only be permitted where there is capacity and/or adequate services can be made available.

3.4.3. Community Facilities and Amenities

The Section on Community Facilities and Amenities includes the following:

3.3.3 Community Facilities Policies and Objectives

Objective CF 8 – Amenity Network

Support the establishment of an accessible and sustainable network of greenway linkages and amenities that provide safe and attractive circulation routes for pedestrians and cyclists for the enjoyment and recreational use of the entire community. This network should link together community facilities, amenities and built heritage features in the plan area and surrounding areas. Galway County Council will subject to compliance with the Habitats Directive seek to promote the functioning of greenway networks as wildlife corridors and habitats to enhance the biodiversity and the natural environment.

Objective CF 9 – Riverside Networks Refer to Specific Objectives map

Encourage and support the development of riverside walkways and cycleways throughout the plan area where feasible and incorporate same into the development of adjoining lands of the marina, streams, woods and the demesne of Portumna Castle, as appropriate. Any potential impacts on natural heritage and designated conservation areas arising from such networks will be duly considered in accordance with the Habitats Directive Assessment as part of any proposal.

3.4.4. Water Supply, Wastewater & Surface Water

The sustainable growth of Portumna is dependent on the satisfactory provision of service infrastructure, including utilities, energy, and communication networks. This infrastructure requires the need to plan for all of these elements so as to ensure that there is adequate availability to support future development, in a manner that is environmentally appropriate, cost effective, efficient and protects public health.

Water Framework Directive

In accordance with the requirement of the Water Framework Directive, there is a Water Framework Directive Register of Protected Areas which consists of an inventory of protected area sites representing area categories to include waters used for the abstraction of drinking water, areas designated to protect economically significant aquatic species, recreational waters, nutrient sensitive areas, and areas designated for the protection of habitat and species.

The Section on Water Supply, Wastewater & Surface Water includes the following:

3.6.3 Water Supply, Wastewater & Surface Water Policies and Objectives

Policy UI 1 – Water Supply, Wastewater And Surface Water Infrastructure

Support Irish Water in the provision and maintenance of adequate wastewater disposal and water supply and the maintenance of the existing surface water drainage infrastructure, in accordance with EU Directives, to service Portumna. This will include satisfactory capacity for public wastewater and a satisfactory quantity and quality of water supply. Sustainable Drainage System approaches and techniques within the plan area shall also be supported.

Objective UI 3 – Wastewater Disposal

New developments shall only be permitted where it can be clearly demonstrated that they can be serviced and that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect the River Shannon Callows/Lough Derg, North east Shore SAC and the Middle Shannon Callows and Lough Derg (Shannon) SPA and its respective qualifying interests.

Objective UI 4 – Connections to the Public Sewer & Public Water Mains

Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect all waters in the plan area, and also to consolidate the urban structure and to control ribbon development along approach roads into Portumna.

Objective UI 5 – Surface Water Drainage and Sustainable Drainage Systems

Maintain and enhance, as appropriate, the existing surface water drainage system throughout the plan area and ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in new developments. Surface water runoff from development sites will be limited to pre-development levels and planning applications for new developments will be required to provide details of surface water drainage and Sustainable Drainage Systems

proposals, with the developer responsible for the satisfactory disposal of surface water.

3.7.4 Water Quality

The E.U. Water Framework Directive 2000/60/EC adopted in 2000 requires member states to ensure that all their waters (including surface and groundwater) achieve at least 'good status' by 2015 and to ensure that the current status does not deteriorate in any waters. In accordance with the requirement of the Water Framework Directive, there is a Water Framework Directive Register of Protected Areas which consists of an inventory of protected area sites representing area categories to include waters used for the abstraction of drinking water, areas designated to protect economically significant aquatic species, recreational waters, nutrient sensitive areas and areas designated for the protection of habitats and species. The Shannon International River Basin Management Plan recognises the need to integrate water protection measures with land use planning at regional and local level, as responsibility for taking measures within the plan lies with all public bodies whose activities impact on water quality or who regulate such activities.

Portumna is located within the Lough Derg Water Management Unit of the Shannon International River Basin Management Plan. The implementation of the Shannon International River Basin Management Plan will bring incremental improvement leading to the majority of waters reaching at least 'good status' at the latest by 2027. This current Plan will be reviewed and a revised Plan will issue covering the period 2016-2021.

3.7.5 Water Quality Policies and Objectives

Policy WQ1 – Water Quality

It is the policy of Galway County Council to seek the protection and improvement in water quality in all waters, in conjunction with other agencies and stakeholders in accordance with the EU Water Framework Directive (2006/60/EC), EU Groundwater Directive (2006/118/EC) and other relevant EU Directives, including associated national legislation and policy guidance, (including any superseding versions of same), and to support the implementation of the Shannon International River Basin District Management Plan (as updated), including its Programme of Measures and the actions and measures that form part of the Lough Derg Water Management Unit Action Plan and consider the above when assessing new development proposals.

Objective WQ 1 – Shannon International River Basin District Management Plan and Protection of Waters

Support the implementation of the relevant recommendations and measures as outlined in the Shannon International River Basin Management Plan 2009-2015 (or any other such plan that may supersede same during the lifetime of this Local Area 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 water, groundwater quality and quantity, river corridors and associated wetlands.

Objective WQ 2 – Groundwater & Aquifers

Support the protection of groundwater resources and dependent wildlife/habitats in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010) as amended by the European Communities Environmental Objectives (Groundwater) (Amendment) Regulations 2012 or any other updates. In addition, protect the aquifer that underlays the plan area from risk of environmental pollution and have regard to any groundwater protection schemes and groundwater source protection zones where data has been made available by the Geological Survey of Ireland.

Development Management Guidelines

DM Guideline WQ 1 – Water Bodies and Watercourses

Require all relevant applications, which are located in close proximity to water bodies or watercourses to submit measures to reduce and prevent pollution to the water body/watercourse, both during construction and after completion of the scheme.

3.4.5. Climate Change, Air Quality and Radon

Climate Change

Climate change refers to changes in climatic conditions whether through natural variations or as a result of anthropogenic influences. The impacts of climate change present very serious global risks and threaten the basic components of life, including health, access to water, food production and the use of land. Climate change also poses threats in terms of likelihood and severity of flooding and impacts on water resources, biodiversity, natural habitats and species distribution.

Section 3.7.3 lists the following Flood Risk Management policies and objectives which will contribute to the conservation of Natura 2000 sites.

3.7.3 Climate Change, Air Quality, Radon Policies and Objectives

Objective CC 2 – Climate Change & Green Infrastructure

Galway County Council shall promote the integration of green infrastructure/networks (e.g. interconnected networks of green spaces including aquatic ecosystems) and other physical features on land) into new development proposals in order to mitigate and adapt to climate change.

Objective CC 4 – Air Purification

Encourage landscaping and deciduous tree planting in an environmentally sensitive manner within the plan area as a means of air purification, the filtering of suspended particles and the improvement of Portumna's micro-climate.

Section 3.7.9 lists the following Flood Risk Management policies and objectives which will contribute to the conservation of Natura 2000 sites.

3.7.9 Flood Risk Management and Assessment Policies and Objectives

Policy FL 1 – Flood Risk Management

It is the policy of Galway County Council to support, in co-operation with the OPW, the implementation of the EU Flood Risk Directive (2007/60/EC), the Flood Risk Regulations (SI No. 122 of 2010) and the DoEHLG/OPW publication The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 and Departmental Circular PL2/2014 (or any updated/superseding legislation or policy guidance). Galway County Council will also take account of the OPW Catchment Flood Risk Management Plans (CFRAMS) as appropriate, the Preliminary Flood Risk Assessment (PFRA), the Strategic Flood Risk Assessment for County Galway 2015 – 2021, the Strategic Flood Risk Assessment carried out for Portumna and any recommendations and outputs arising from same that relate to or impact on the plan area.

Objective FL 1 – Flood Risk Management and Assessment (Refer to Maps 3A/3B)

Ensure the implementation of the DoEHLG/OPW publication The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (including its accompanying Technical Appendices) and including the Department of the Environment, Community and Local Government's Circular PL 2/2014 (or any updated/superseding document) in relation to flood risk management within the Plan Area. This will include the following:

- 4) Where certain measures proposed to mitigate or manage the risk of flooding associated with new developments are likely to result in significant effects to the environment or European sites downstream, such measures will undergo environmental assessment and Appropriate Assessment, as appropriate.*

Objective FL 6 – Environmental Impact Assessment/Statement (EIA/EIS) & Flood Risk Assessment

Flood risk may constitute a significant environmental effect of a development proposal that in certain circumstances may trigger a sub-threshold EIS, therefore Galway County Council shall ensure that Flood Risk Assessment would form an integral part of any EIA undertaken for projects within the plan area.

Objective FL 9 – Protection of Water Bodies and Watercourses (Refer to Objective DS 9 & Maps 3A/3B)

Protect water bodies and watercourses within the Plan Area from inappropriate development, including lakes, rivers, canals, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include a 10 metre protection buffer from rivers/canal within the plan area, as measured from the near river/canal bank (this distance may be increased and decreased on a site by site basis, as appropriate). In addition, promote the sustainable management and uses of water bodies and avoid culverting or realignment of these features.

3.4.6. Urban Design and Landscape

3.8.2 Urban Design and Landscape Policies and Objectives

Objective UD 4 – Green Network and Landscaping (Refer to Objective DS 3 also)
Support the development of a network of amenities, open spaces and natural areas that support biodiversity, that incorporate existing landscape features such as local rivers, streams, trees, stone walls and hedgerows, that provide pedestrian and cycling linkages and active and passive recreation opportunities, that help to structure and provide relief from the built environment and that can provide areas for surface water attenuation and flood risk management.

3.4.7. Natural Heritage and Biodiversity

Section 3.10, Natural Heritage and Biodiversity includes a number of policies and objectives which will contribute to the conservation of Natura 2000 sites.

3.10.2 Natural Heritage and Biodiversity Policies

Policy NH 1 – Natural Heritage, Landscape and Environment

It is the policy of Galway County Council, to support the conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of Natura 2000 sites, the protection of Natural Heritage Areas and proposed Natural Heritage Areas 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. The protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, will be implemented in accordance with relevant EU environmental directives and applicable national legislation, policies, plans and guidelines, including the following (and any updated/superseding documents):

- *EU Directives, including the Habitats Directive (92/43/EEC), the Birds Directive (2009/147/EC codified version of Directive), the Environmental Impact Assessment Directive (85/337/EEC) & EIA Directive (2014/52/EU), the Water Framework Directive (2000/60/EC), the Strategic Environmental Assessment Directive (2001/42/EC) and the Environmental Liability Directive (2004/35/EC).*
- *National legislation, including the Wildlife Acts (1976 - 2012), the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development (Amendment) Act 2010, the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) and the Regulation of the European Parliament and of the Council on the Prevention and management of the Introduction and Spread of Invasive Non-Native Species [2013/0307 (COD)] (adopted by European Council and effective January 2015).*
- *National policy guidelines, including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic*

Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidelines 2010.

- *Catchment and water resource management plans, including the Shannon International River Basin Management Plan 2009-2015 (and as updated).*
- *Biodiversity plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's National Biodiversity Plan, the Biodiversity Action Plan for County Galway 2008-2013 and the Biodiversity Guidelines produced by Galway County Council.*

Objective NH 1 – Natura 2000 Sites

Objective NH 1 – European Sites

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/superseding 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 and Appropriate 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 Natura 2000 site (either individually or in combination with other plans or projects); or*
- 2) *The plan or project will adversely affect the integrity of any Natura 2000 site (that does not host a priority 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 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 adversely affect the integrity of any Natura 2000 site (that hosts a priority 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 of 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 NH 2 – Protected Habitats and Species

Support the protection of protected habitats and species listed in the annexes to the EU Habitats Directive 1992 (92/43/EEC), the Birds Directive (2009/147/EC) and regularly occurring-migratory birds and their habitats, species protected under the Wildlife Acts and the Flora Protection Order. This includes the protection of species such as the barn owl, otter, salmon, brook lamprey and bats and their roosts amongst others, and the maintenance of woodland, hedgerows, tree lines, waterways, ecological networks and corridors that serve as feeding areas, flight paths and commuting routes for bats.

Objective NH 3 – Natural Heritage Areas and Proposed Natural Heritage Areas

Protect Natural Heritage Areas and proposed Natural Heritage Areas in accordance with the requirements of the Wildlife Act 1976, the Wildlife (Amendment) Act 2000 and the Planning and Development Act 2000 (as amended). Where a proposed development within the plan area may give rise to likely significant effects on any Natural Heritage Area or proposed Natural Heritage Area an Ecological Impact Assessment or an Environmental Impact Assessment, as appropriate, may be required (Refer to Map 2A/2B)

Objective NH 4 – Impact Assessments

Ensure full compliance with the requirements of the EU Habitats Directive (92/43/EEC), SEA Directive (2001/42/EC) and EIA Directives including 2011/92/EU & 2014/52/EU and associated legislation/regulations, including the associated European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011), European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004-2011, Planning and Development (Strategic Environmental Assessment) Regulations 2004-2011 and the European Communities (Environmental Impact Assessment) Regulations 1989-2011 & European Union (ENVIRONMENTAL Impact Assessment) Planning and Regulations 2014 (or any updated/superseding legislation). Planning applications for proposed developments within the plan area that may give rise to likely significant effects on the environment and/or any designated site may be need to be accompanied by one or more of the following: an Environmental Impact Statement, an Ecological Impact Assessment Report, an Appropriate Assessment Screening Report or a Natura Impact Statement, as appropriate. Ensure that Natura Impact Statements and any other environmental or ecological impact assessments submitted in support of proposals for development are carried out in accordance with best practice methodologies and contain all necessary baseline assessments.

Objective NH 5 – Biodiversity and Ecological Networks (Refer to Maps 2A/2B)

Support the protection of biodiversity and ecological connectivity within the plan area including woodlands, trees, hedgerows, roadside verge vegetation, rivers, streams, canals, natural springs, wetlands, stonewalls, fens, blanket bog, heath, rock outcrops, geological and geo-morphological systems, other

landscape features and associated wildlife, where these form part of the ecological network.

- a) Seek to retain and/or incorporate these natural features into developments, in order to avoid ecological fragmentation and maintain ecological corridors and stepping stones in the context of Article 10 of the Habitats Directive.
- b) Protect and enhance water quality and ecology of all waters including East Claggernagh Stream, Fairyhill Stream, the River Shannon and the area of Lough Derg in the plan area and their function as ecological corridors, by maintaining the existing banks and channels and ensuring that new developments in the plan area are set back at least 10 metres as measured from the near river bank (this distance may be increased and decreased on a site by site basis, as appropriate).
- c) Maintain and enhance biodiversity through the appropriate planting of native trees, shrubs and hedgerows indigenous to the area and of Irish provenance in public and private areas and in new developments.
- d) Seek to prevent the introduction of imported ash trees/plants or other such species into the plan area in line with the Plant Health Directive and any updated legislation.
- e) Ensure that any new development proposals within or near the 10m buffer are adequately assessed, undergo Appropriate Assessment and the preparation of an NIS, should screening show that this is necessary and where the Planning Authority consider that such screening/assessments are required.

Objective NH 6 – Water Resources

Protect the water resources in the plan area, including rivers, streams, springs, wetlands, surface waters and groundwater quality, 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 Shannon International River Basin Management Plan 2009-2015 (including any superseding document) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). Support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development in the plan area.

Objective NH 7 – Wetlands, Springs, Rivers and Streams

Seek to preserve the wetlands of Portumna, identify and protect natural springs, streams/rivers, where possible and ensure that any plans/projects with potential to adversely affect groundwater, springs, streams or rivers, identify the presence of these features and adequately assess the impacts to them. Protect springs identified on Ordnance Survey mapping or any springs newly identified during project assessment, so that they are not impeded.

Objective NH 8 – Environmental Management Area (Refer to Map 2A/2B)

Ensure that new development proposals on or near the Environmental Management Area that may impact on the Natura 2000 network are

adequately assessed, undergo environmental and/or Appropriate Assessment, including the evaluation of cumulative/in combination effects, and any impacts identified can be avoided, reduced and/or mitigated, as appropriate, in accordance with applicable environmental legislation and policy prior to any consent being given.

Objective NH 9 – Riparian Zones

Protect the riparian zones of watercourse systems throughout the plan area, recognising the benefits they provide in relation to flood risk management and in relation to the ecological integrity of the watercourse systems. This will a general 10 metre protection buffer from rivers within the plan area as measured from the river bank, (this distance may be increased and decreased on a site by site basis, as appropriate).

Objective NH 12 – Control of Invasive and Invasive Alien Species

Seek to prevent the spread of invasive, invasive alien species and noxious weeds and require a landscaping plan to be produced for developments near water bodies and ensure that such plans do not include invasive species.

Objective NH 13 – Screening for Appropriate Assessment

Ensure that all development proposals are screened to determine whether they on their own or in combination with other plans and projects are likely to have a significant effect on a European site in view of its conservation objectives. Where significant effects are likely or uncertain, an NIS will be required in accordance with the Habitats Directive.

Objective NH 15 – NPWS & Integrated Management Plans

Galway County Council shall seek to engage with and support the National Parks and Wildlife Services (NPWS) at their request to ensure integrated Management Plans are prepared for all European Sites within the sphere of influence of the Portumna LAP area and ensure that such plans prioritise achieving the conservation objectives of the European sites, that they are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to the local community.

3.5. Is the Plan Necessary to the Management of Natura 2000 Sites?

The Plan is not directly connected with or necessary to the management of the Natura 2000 sites in the Plan area. However, it does include, inter alia, measures to protect, conserve and manage the area's natural heritage in a prudent and sustainable manner, including Natura 2000 sites, and to seek its enhancement where appropriate and feasible.

4. Identification of Natura 2000 Sites

This section of the screening process describes the European sites within a 15km of the LAP area. A 15 km buffer zone has been chosen as a precautionary measure to ensure that all potentially affected Natura 2000 sites are included in the screening process. Figure 4.1 indicates the location of the Portumna LAP area in relation to sites within 5

km, 10 km and 15km. This is in line with Appropriate Assessment of Plans and Projects in Ireland-Guidance for Planning Authorities, produced by the Department of the Environment, Heritage and Local Government. However, this screening report is cognisant of the response from the DAU highlighting that:

a 15km distance for plans in existing guidance is an indicative figure and its application and validity should be examined and justified in each specific case with reference to the nature, size and location of plan area, and the sensitivities of the ecological receptors, and the potential for in combination effects

There are four Natura 2000 sites within the Plan area: River Shannon Callows SAC (Site Code 000216), Lough Derg, North-East Shore SAC (Site Code 002241), Lough Derg (Shannon) SPA (Site Code 004058) and the Middle Shannon Callows SPA (Site Code 004096) and there are a number of designated sites in the vicinity.

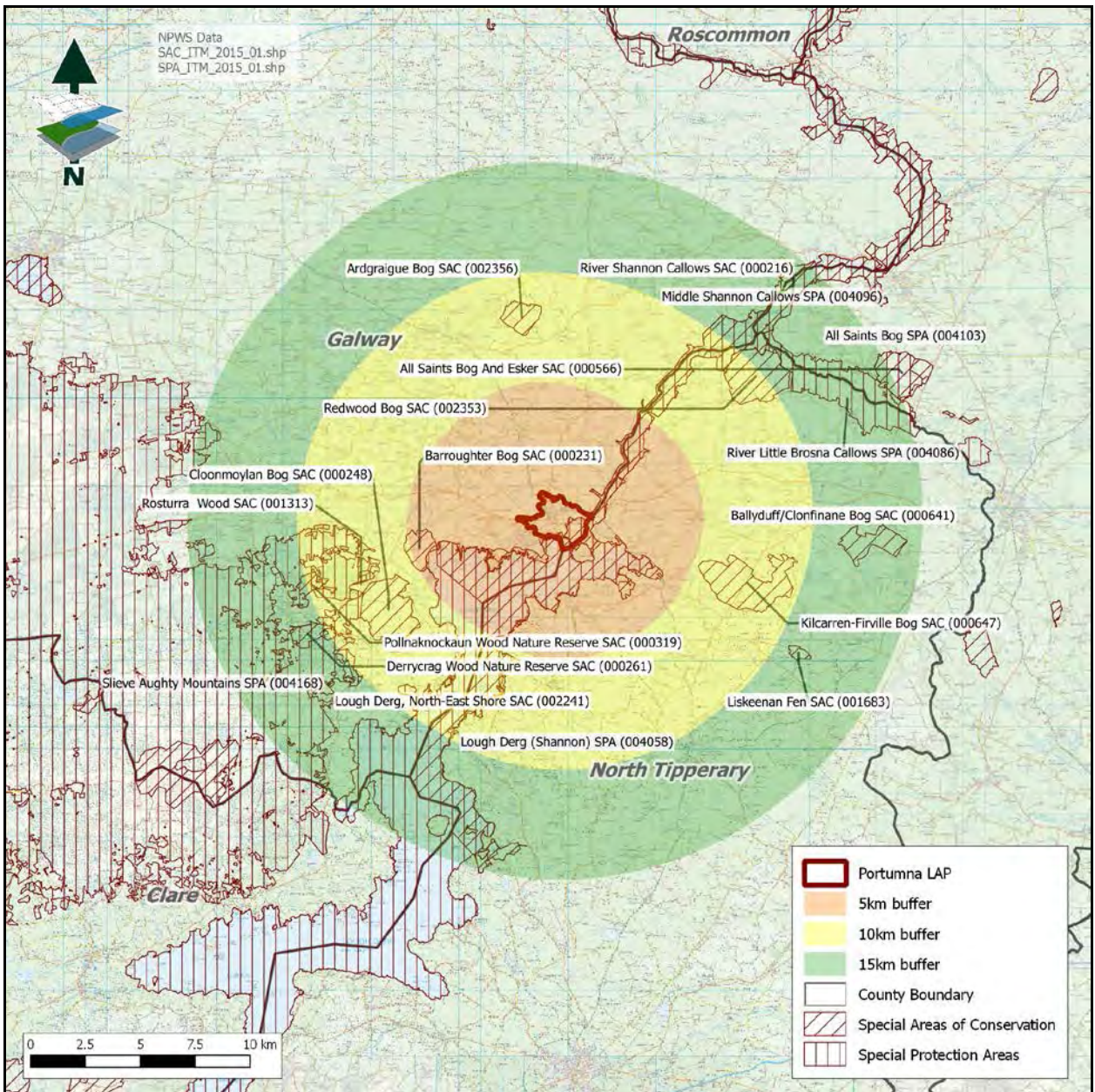


Figure 4.1. The LAP area in relation to the surrounding European sites.

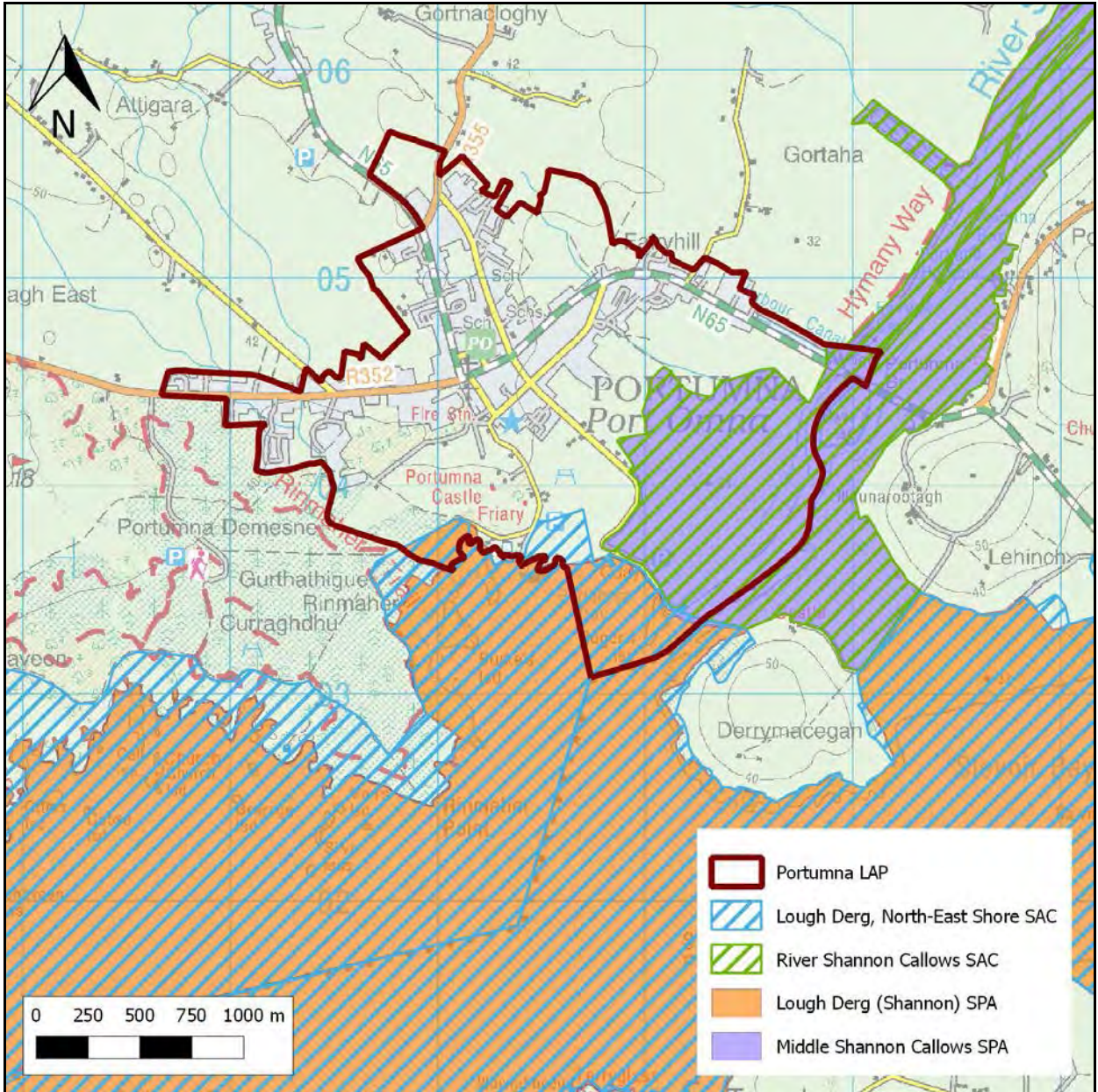


Figure 4.2. Detail of European sites in relation to the LAP.

Table 4.1 lists Natura 2000 sites with their respective codes, distances from the LAP boundary and potential pathways between the sites and the plan area.

Table 4.1. Pre-screening of Natura 2000 sites within 15 km of the Portumna LAP area.

Natura 2000 Site	Site Code	Distance from Plan (km)	Hydrological Pathway?	Aerial Pathway?	Disturbance Pathway?
River Shannon Callows SAC	000216	0.0	The River Shannon, with this associated SAC, forms the eastern boundary of the LAP with the southern (downstream) extent of the SAC terminating at the south east of the LAP	Yes	Internationally important winter site for numbers and species of waterfowl and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake. The presence of Otter adds further importance to the site.
Lough Derg, North-East Shore SAC	002241	0.0	Starts at Portumna	Yes	Site of significant ecological interest, with six habitats listed on Annex I of the E.U. Habitats Directive. Four of these are priority habitats - Cladium fen, alluvial woodland, limestone pavement and Yew woodland. Other annexed habitats present include alkaline fen and Juniper scrub formations on heath and calcareous grasslands. In addition, the lake itself is an SPA that supports important numbers of wintering wildfowl, Greenland White-fronted Goose, Common Tern and Cormorant, a number of which are listed under Annex I of the E.U. Birds Directive.
Lough Derg (Shannon) SPA	004058	0.0	Starts at Portumna	Yes	Lough Derg SPA is of high ornithological importance as it supports nationally important breeding populations of Common Tern, Cormorant, Great Crested Grebe, and probably Tufted Duck and Black-headed Gull. In winter, it has nationally important populations of Tufted Duck and Goldeneye, as well as a range of other species including Whooper Swan. The site is still used on occasions by Greenland White-fronted Goose. The presence of Common Tern, Whooper Swan and Greenland White-fronted Goose is of particular note as these are listed on Annex I of the E.U. Birds Directive
Middle Shannon Callows SPA	004096	0.0	Finishes at Portumna	Yes	Internationally important for the total numbers of birds and for Whooper Swan in particular. In summer the site supports important populations of breeding waders and is one of the most important National sites for Corncrake
Barroughter Bog SAC	000231	3.8	Located on the northwest shore of Lough Derg, it has limited hydrological connectivity to the lake.	Limited	Barroughter Bog is a raised bog of considerable conservation value. Given its relatively small size, the area of outstanding quaking habitat is remarkably large. Its proximity to the shores of Lough Derg, with its succession from open water through extensive reed beds and marginal scrub, to raised bog, adds to its importance. It is also the only raised bog on the shores of Lough Derg. It has limited hydrological connectivity to the lake and is unlikely to be affected by the Plan.
Kilcarren-Firville Bog SAC	000647	5.3	This site is at a distance and direction unlikely to incur	Limited	No

			hydrological impacts		
Cloonmoylan Bog SAC	000248	5.7	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Slieve Aughty Mountains SPA	004168	6.5	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	SCIs: Hen Harrier and Merlin. Since the LAP deals with built-up area in the vicinity of Portumna only, it is difficult to predict any likely impacts of the plan on these two species living in upland forestry, bog and heath habitat.
Rosturra Wood SAC	001313	7.0	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Ardgraique Bog SAC	002356	7.2	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Redwood Bog SAC	002353	8.2	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Pollnacknockaun Wood Nature Reserve SAC	000319	8.8	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Derrycrag Wood Nature Reserve SAC	000261	9.7	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
Liskeenan Fen SAC	001683	10.6	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
River Little Brosna Callows SPA	004086	10.6	This site is at a distance and direction unlikely to incur hydrological impacts. Upstream of the LAP area, so no issues with water quality.	Limited	SCIs: Whooper Swan, Wigeon, Teal, Pintail, Shoveler, Golden Plover, Lapwing, Black-tailed Godwit, Black-headed Gull and Greenland White-fronted Goose.. Disturbance not an issue due to distance. Connectivity issues unlikely (assuming that birds may be passing back and forth to site along Shannon and Lough Derg).
Ballyduff/Clonfinane Bog SAC	000641	11.2	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
All Saints Bog And Esker SAC	000566	14.4	This site is at a distance and direction unlikely to incur hydrological impacts	Limited	No
All Saints Bog SPA	004103	14.4	This site is at a distance and direction unlikely to incur hydrological impacts. Upstream of the LAP area, so no issues with water quality.	Limited	SCI Greenland White-fronted Goose. As with River Little Brosna Callows, no issues with disturbance. Similarly, connectivity unlikely to be an issue.

4.1. Detailed Description of Natura 2000 Sites within the Zone of Influence

The following is a detailed description of the Natura 2000 Sites located within the Zone of Influence of the Portumna Local Area Plan. Site synopses for all 18 sites are available on the NPWS metadata website.

4.1.1. Special Areas of Conservation

River Shannon Callows SAC (Site code 000216):

The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50 km long and averages about 0.75 km wide (reaching 1.5 km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from silty- alluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.

The River Shannon Callows is mainly composed of lowland wet grassland. Two habitats listed on Annex I of the E.U. Habitats Directive are well-represented within the site – *Molinia* meadows and lowland hay meadows. In places these two habitats grade into one another.

A further two Annex I habitats, both listed with priority status, have a minor though important presence within the site. Alluvial forest occurs on a series of alluvial islands just below the ESB weir near Meelick. Several of the islands are dominated by well-grown woodland consisting mainly of Ash (*Fraxinus excelsior*) and Willows (*Salix spp.*). Other habitats of smaller area but also of importance within the site are lowland dry grassland, drainage ditches, freshwater marshes and reedbeds. Good quality habitats on the edge of the callows included in the site are wet broadleaved semi-natural woodland and dry broadleaved woodland. There are also areas of raised bog, fen on old cut-away bog and a 'petrifying stream' with associated species-rich calcareous flush.

Two species which are legally protected under the Flora (Protection) Order, 1999, occur in the site - Opposite-leaved Pondweed (*Groenlandia densa*) in drainage ditches, and Meadow Barley (*Hordeum secalinum*) on dry alluvial grassland. The Red Data Book plant Green-winged Orchid is known from dry calcareous grasslands within the site, while the site also supports a healthy population of Marsh Pea (*Lathyrus palustris*).

The site is of international importance for wintering waterfowl and of particular note is an internationally important population of Whooper Swans. A further five species have populations of national importance. Small flocks of Greenland White-fronted Goose use the Shannon Callows; these are generally associated with larger flocks which occur on the adjacent Little Brosna Callows and River Suck Callows.

Shoveler (an estimated 12 pairs in 1987) and Black-tailed Godwit (Icelandic race) (one or two pairs in 1987) breed within this site. These species are listed in the Red Data Book as being threatened in Ireland. The scarce bird Quail is also known to breed within the area. The callows has at times held over 40% of the Irish population of the globally endangered Corncrake, although numbers have declined in recent years. The total

population of breeding waders in 1987 was one of three major concentrations in Ireland and Britain. The population of breeding Redshank in the site was estimated to be 10% of the Irish population, making it nationally significant. Also, the Annex I species Merlin and Hen Harrier are regularly reported hunting over the callows during the breeding season and in autumn and winter.

This site holds a population of Otter, a species listed on Annex II of the E.U. Habitats Directive, while the Irish Hare, which is listed in the Irish Red Data Book, is a common sight on the callows.

The Shannon Callows are used for summer dry-stock grazing (mostly cattle, with some sheep and a few horses), and permanent hay meadow. About 30 ha is a nature reserve owned by voluntary conservation bodies. The River Shannon is used increasingly for recreational purposes with coarse angling and boating accounting for much of the visitor numbers. Intermittent and scattered damage to the habitats has occurred due to over-deepening of drains and peat silt deposition, water-skiing, ploughing and neglect of hay meadow (or reversion to pasture). However, none of these damaging activities can yet be said to be having a serious impact. Threats to the quality of the site may come from the siting of boating marinas in areas away from centres of population, fertilising of botanically-rich fields, the use of herbicides, reversion of hay meadow to pasture, neglect of pasture and hay meadow, disturbance of birds by boaters, anglers, birdwatchers and the general tourist. The maintenance of generally high water levels in winter and spring benefits all aspects of the flora and fauna, but in this regard, summer flooding is a threat to breeding birds, and may cause neglect of farming.

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site – Molinia meadows and lowland hay meadows with good examples of a further two Annex habitats (both with priority status). In winter the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)
6510	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)
8240	Limestone pavements*
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*

* denotes a priority habitat

Code	Common Name	Scientific Name
1355	Otter	<i>Lutra lutra</i>

Barroughter Bog SAC (Site code 000231):

Barroughter Bog is a relatively small raised bog, situated on the shores of Lough Derg in Co. Galway, a few kilometres east of Woodford, and bounded in the north by the Cappagh River. The bog has a good dome, which is slightly hollowed towards the eastern side. The north-eastern corner (cut off by an old drain and track) and a narrow area in the south-east are fairly dry due to drainage and burning.

Part of the central area of the peat dome contains active raised bog. Degraded raised bog is the dominant habitat on the uncut high bog surface at this site. It is generally associated with the more marginal areas of the high bog where drainage effects, due to peripheral peat-cutting, are most pronounced. The site also includes some wet grassland along the Cappagh River and an area of rocky grassland in the north.

A threat to the extent and quality of the central and most interesting habitat is present in the form of active "hopper" turf extraction around 90% of the bog's perimeter. This is especially serious along the south-west facing edge, where the quaking area lies quite close to the perimeter. Burning has caused some drying out of the bog surface. The area of outstanding habitat (i.e. the very wet, quaking area) in the centre of the bog could be extended if burning was prevented, especially towards the south-west.

Barroughter Bog is a raised bog of considerable conservation value. Given its relatively small size, the area of outstanding quaking habitat is remarkably large. Its proximity to the shores of Lough Derg, with its succession from open water through extensive reed beds and marginal scrub, to raised bog, adds to its importance. It is also the only raised bog on the shores of Lough Derg.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration 7150
7150	Depressions on peat substrates of the Rhynchosporion

* denotes a priority habitat

Cloonmoylan Bog SAC (Site code 000248):

Cloonmoylan Bog is a very large expanse of level raised bog, situated close to the western shore of Lough Derg, near Woodford in Co. Galway. It lies at an altitude of approximately 50 m above sea-level.

Active raised bog comprises areas of high bog that are wet and actively peat-forming, where the percentage cover of bog mosses (*Sphagnum* spp.) is high, and where some or all of the following features occur: hummocks, pools, wet flats, *Sphagnum* lawns, flushes and soaks. Degraded raised bog corresponds to those areas of high bog whose hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration. The Rhynchosporion habitat occurs in wet depressions, pool edges and erosion channels.

This site contains a large area of good quality, intact active raised bog habitat. At least half of the surface of the peat dome comprises degraded raised bog. A wide flush dominated by Purple Moor-grass (*Molinia caerulea*) is a prominent feature in the northern half of this site. The flush runs in an east to west direction and there is a distinct central drain (probably natural) in which water flow is evident. In parts of this flush area wet bog woodland occurs.

Raised bogs are vulnerable to turf-cutting and any drain excavation, since these practices affect the hydrology of the bog. Burning is also damaging, causing drying-out of the surface and removal of vegetation.

Cloonmoylan Bog is of high conservation value, due to the large area of good quality raised bog habitats present, notably active raised bog and bog woodland, both of which are listed with priority status on Annex I of the E.U. Habitats Directive. Raised bogs have largely disappeared from Europe, and in Ireland, are threatened by peat extraction. Habitat diversity on this raised bog is good and the presence of scarce plant species adds to the sites importance.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion
91D0	Bog woodland*

* denotes a priority habitat

Derrycrag Wood Nature Reserve SAC (Site code 000261):

Derrycrag Wood is an old oak woodland, situated 1.5 km south-east of Woodford, Co. Galway, and is traversed by the Woodford River. The underlying rock is Old Red Sandstone, which is overlain in places by drift. The soils vary from thin, acidic podzols to deeper, gleyed brown earths. The site is dominated by planted conifers, but fragments of old oak woodland still occur.

Before commercial conifer planting in the 1930s and 1940s, this would have been part of the largest oak woodlands in the country. In the fragments remaining, the Sessile Oak (*Quercus petraea*) canopy can be up to 17m tall. In spite of the fact that the site is dominated by planted conifers, elements of the original ground flora persist, especially where mature Scots Pine (*Pinus sylvestris*) is present. Most of the site is also designated as a Nature Reserve, but an adjacent area of thinned out Scots Pine with a very diverse ground flora and an area of wet grassland are also included.

Pine Marten and Badger (both Red Data Book species), Red Squirrel, Fox and Fallow Deer are all found in the wood. Bat species also forage in the area. Kestrel, Sparrowhawk and Jay are a few of the more notable bird species present in the site.

Management of the wood includes the gradual removal of all conifers except for a few areas with mature Scots Pine. The cleared areas, however, are vulnerable to invasion by non-native species, e.g. Beech (*Fagus sylvaticus*) and to grazing by deer.

Derrycrag Wood is of considerable conservation significance as an old oak woodland, a habitat listed on Annex I of the E.U. Habitats Directive. Furthermore it supports a diverse flora and fauna including the Red Data Book species Alder Buckthorn, Pine Marten and Badger.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles

* denotes a priority habitat

Pollnacknockaun Wood Nature Reserve SAC (Site code 000319):

Pollnacknockaun Wood is situated approximately 2 km north-east of Woodford, Co. Galway. It is a large area of former oakwood with significant remnants of the original stands of Sessile Oak (*Quercus petraea*) and even larger areas of intact ground flora. The area is underlain by Old Red Sandstone, which is covered in places by drift. The soils vary from thin acidic podzols to deeper gleyed brown earths. In the 1930s and 1940s the area at Pollnacknockaun was cleared of hardwoods and planted with commercial conifers. Most of these conifers have now been removed and woodland regeneration is occurring. Invasion by Beech (*Fagus sylvaticus*) and Rhododendron (*Rhododendron ponticum*) is now a threat.

At Pollnacknockaun Wood, due to the relatively fertile nature of the soil, the size and quality of the hardwood and the diversity of the ground flora is greater than in many other Irish oakwoods. The site boundary has been taken to include all of the Nature Reserve plus an adjacent, similar sized area owned by Coillte. Also included is a tongue of woodland to the east which consists of a good stand of Oak with an understorey of Yew and Holly. A stream which passes through the Nature Reserve is also included in the site.

A varied bird community, including the Jay, is present in the wood, and Fallow Deer (*Dama dama*) graze part of the site.

Old Oak Woodlands are listed on Annex I of the E.U. Habitats Directive. Oakwoods are rare in Ireland and oakwoods on rich soils which are not the result of planting are even rarer. The remnants of original oakwood in Pollnacknockaun are part of what was, until 1940, one of the largest areas of natural oakwood in Ireland.

Pollnacknockaun Wood represents an opportunity to recreate an oakwood with its associated fauna and a diverse ground flora. The wet woodland, stream and wet grassland add further interest to this site.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles

* denotes a priority habitat

All Saints Bog And Esker SAC (Site code 000566):

All Saints Bog is a lowland raised bog lying about 5 km north-west of Birr in Co. Offaly, and separated from the Little Brosna Callows by a fragmented esker ridge.

The active raised bog is dominated by bog mosses. Degraded raised bog dominates the drier areas of high bog surface within this site. The site contains the largest stand of birch (*Betula* spp.) woodland growing on an active raised bog in the country. The birch wood supports an interesting invertebrate fauna, with two rare species being recorded; a fly (*Dictenida bimaculata*, Order Diptera) and a ladybird (*Hippodamia tredecimpunctata*, Order Coleoptera). There is a concentration of saproxylic invertebrates in the birch woodland, which suggests that the woodland is ancient.

The bog has traditionally been used as an occasional refuge for part of the Little Brosna flock of Greenland White-fronted Goose, an Annex I species of the E.U. Birds Directive, although in recent years they have not been observed on the bog.

An extensive area in the north-east corner of the bog, representing about 20% of the bog surface, is being cut for turf, with drains running into the eastern edge of the birch woodland. This appears to be leading to the bog drying out, as the surface is reported to be much drier than when first surveyed in the mid-1980s.

To the south of the bog are the fragmented remains of an esker ridge, which may have an influence on the hydrology of the flush. It is included in the site partly for this reason, but also for its own intrinsic value.

All Saints' Bog is a unique bog, important for its vegetation types, plants, invertebrates and birds. To conserve the site peat cutting needs to stop, drains need to be blocked and marginal dams built to raise the water table. The esker supports species-rich grassland, including rare species, and this area should continue to be grazed but left unfertilized. Further gravel extraction should be prevented, although some disturbance may be required to conserve the Red Hemp-nettle and Blue Fleabane.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (* important orchid sites)*
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion
91D0	Bog woodland*

* denotes a priority habitat

Ballyduff/Clonfinane Bog SAC (Site code 000641):

Clonfinane and Ballyduff bogs are found in Co. Tipperary, and lie some 6 km to the south-west of Birr (Co. Offaly). The two bogs are separated by a small area of cutover bog, with Clonfinane on the west and Ballyduff on the east.

Clonfinane is a large, flat lowland raised bog largely bordered by drains and, except in the immediate vicinity of the drains, is wet and quaking. The bog consists of a southern and a northern lobe, with the southern being wetter and containing a well developed pool and hummock complex. The drier northern lobe has recently been drained and exploited for moss peat and is not included within the SAC. At the western end of Clonfinane Bog there is a small Scots Pine (*Pinus sylvestris*) woodland.

Ballyduff is a smaller, domed bog, with a ridge at the north-eastern end. The south-east margin is wettest, with quaking areas and flushes. Towards the centre of the bog there is a well developed pool and hummock system. A moss peat development has recently affected an area in the south part of Ballyduff.

Active raised bog is found in the wet central areas of both Ballyduff and Clonfinane bogs. Both Ballyduff and Clonfinane bogs contain substantial areas of degraded raised bog and these areas are typically located along the edges of the high bog. An area of bog woodland occurs on the high bog at Clonfinane. The nationally rare shrub Alder Buckthorn (*Frangula alnus*) grows in tall birch woodland along the northern margins of Clonfinane.

There are a number of areas on the high bog surface of both bogs which have been drained in the past decade and this drainage has led to the degradation of the habitat locally. At Clonfinane these drains have been subsequently dammed with peat dams, an action which should arrest the decline in habitat quality. On both bog areas there are relatively high levels of pine regeneration on the surface, which suggests that the surface is drying out. Burning poses a significant threat to the bog surface and especially to the area of bog woodland due to its rather dry nature.

Ballyduff/Clonfinane bog is of high conservation value as it contains good examples of the Annex I habitats active raised bog, degraded raised bog, depressions on peat substrates (Rhynchosporion) and bog woodland. Both active raised bog and bog woodland are listed on the Annex with priority status. Although parts of the site have been drained in the past there has been significant restoration of the high bog areas in the Clonfinane portion of the site.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion
91D0	Bog woodland*

* denotes a priority habitat

Kilcarren-Firville Bog SAC (Site code 000647):

Kilcarren-Firville Bog is situated approximately 2 km east of the village of Carrigahorig in north Co. Tipperary. It is a lowland raised bog complex which extends about 4.5 km from east to west and is bisected by a road. It contains a large area of uncut high bog.

The site contains substantial areas of active raised bog, which are largely confined to the wetter, more central areas of high bog. The degraded raised bog tends to occur along the high bog margins where the peat has been subject to drying out. Localised flushes support Downy Birch (*Betula pubescens*) and Scots Pine (*Pinus sylvestris*).

The uncut high bog is surrounded by a large cutover area which is still subject to varying degrees of peat-cutting. Peripheral areas at Kilcarren-Firville Bog have been extensively damaged by peat cutting, drainage and land reclamation. The structure of the high bog has been detrimentally affected by drainage effects over a long period of time through a lowering of the water table. This can lead to the decline in abundance of plant species of wet bog conditions. Without restoration works, further drying out of the bog surface is likely to occur and further peat cutting remains a threat.

Kilcarren-Firville Bog is of high conservation importance as it contains good examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog and depressions on peat substrates (Rhynchosporion). The quality of these habitats is good, although the overall system has been detrimentally affected by drainage effects over a long period of time.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion

* denotes a priority habitat

Rosturra Wood SAC (Site code 001313):

Rosturra Wood comprises part of what was formerly a large stand of Sessile Oak (*Quercus petraea*) woodland. It is situated about 3 km east of Woodford, Co. Galway and consists of two separate areas. In the 1930s and 1940s much of the wood was cleared and planted with coniferous species. However, the wood retains significant remnants of the original stands of Sessile Oak and its associated ground flora. The wood is situated on rich loamy soils and consequently the size and quality of the hardwood and the diversity of the ground flora is greater than in most Irish Sessile Oak woods.

The rare and legally protected (Flora (Protection) Order, 1999), Narrow-leaved Helleborine (*Cephalanthera longifolia*) occurs in both sections of the wood. Almost half of Rosturra Wood is designated as a Statutory Nature Reserve.

Oak woods are rare in Ireland and those found on rich soils which are not the result of planting are even more rare. The remnants of original oak wood at Rosturra Wood (and at the neighbouring Derrycrag Wood and Pollnacknockaun Wood) are part of what was, until 1940, the largest area of natural oak wood in the country. Oak and Yew woodland such as that found at Rosturra Wood are habitats of considerable conservation significance and are listed on Annex I of the E.U. Habitats Directive. The presence of the rare species Narrow-leaved Helleborine adds further to the conservation value of the site.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles

* denotes a priority habitat

Liskeenan Fen SAC (Site code 001683):

Liskeenan Fen is a small turlough-like fen situated about 10 km north-west of Borrisokane and just 1 km from the village of AGLISH, in north Co. Tipperary. The site floods in winter via a swallow hole in the far north-west corner. The eastern part of the site consists of a small, dry, inactive raised bog on which mixed woodland is developing, as well as an extensive and unusual area of flooded cut-away.

The main habitat at this site consists of calcareous fen. A secondary habitat which is also of interest is the regenerating flooded cut-away bog east of the fen. Also included in the site is a small field of species-rich dry grassland. There is also a wet grassland area within the site, and a mixed woodland is developing on the bog in the east. All of these habitats add diversity to the site.

In summer the fen is grazed, but few cattle venture into the wettest centre. Any alteration of the swallow-hole could threaten the water levels at the site.

Liskeenan Fen is of conservation importance as it contains a good example of a *Cladium* fen, a habitat listed with priority status on the E.U. Habitats Directive. It is one of the only such fens remaining in the area, most of the rest having been drained in the past. The presence of a range of other habitat types in the site, along with some rare and scarce vascular plants, adds further to the value of the area.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7120	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *

* denotes a priority habitat

Lough Derg, North-East Shore SAC (Site code 002241):

Lough Derg, the lowest order lake on the River Shannon, is one of the largest bodies of freshwater in Ireland. This SAC, however, only includes the northern shore of the lake from the mouth of the Cappagh River in the north-west to just below Black Lough at the north-eastern shore. The greater part of this site lies on Carboniferous limestone, although there is Old Red Sandstone on the southern shores of the eastern section.

The geology of the lake shore is principally limestone and in places this protrudes at the surface in the form of boulders and rubble, and can be classified as limestone pavement. These are often bryophyte-rich surfaces or else support a calcareous grassland or heath flora, as well as some woody species, such as Yew (*Taxus baccata*) and Juniper (*Juniperus communis*).

A second priority Annex I habitat, Cladium fen, occurs occasionally along the lake margins, mainly in association with alkaline fens, Common Reed (*Phragmites australis*) and other swamp vegetation.

A substantial area of Yew is located on limestone at Cornalack, where Yew forms a scrub woodland along the east shore of Lough Derg. Elsewhere, small stands of Yew occur. Juniper occurs throughout this site in a range of habitats, associated with calcareous grasslands, heath and limestone outcrops. Some of the finest examples of Juniper formations in Ireland occur along the lake edge where upright, bushy Juniper shrubs up to 3 m tall are found. Deciduous woodlands are also a notable feature of the site, dominated by oak (*Quercus spp.*), as at Bellevue, and Hazel/Ash at many of the examples along the north-eastern shore. Wet woodland is frequent along the lake shore, and in some areas this conforms well with the E.U. Annex I habitat, alluvial woodland.

The only known site in the country for the Red Data Book plant Irish Fleabane (*Inula salicina*) occurs along the lake shore. Other Red Data Book species present within this site are Marsh Pea (*Lathyrus palustris*) and Ivy Broomrape (*Orobanche hederæ*). The Red Data Book stonewort *Chara tomentosa* has its stronghold in Lough Derg.

The lake is rated as nationally important for waterfowl. The entire lake, including all of the islands, is a designated SPA (Special Protection Area). The lake also supports a number of Greenland White-fronted Goose, a bird species listed on Annex I of the E.U. Birds Directive. There is a Wildlife Sanctuary at the north western edge of the lake.

Lough Derg is of conservation interest also for its fish and freshwater invertebrates. Lampreys, are known to occur and the lake contains an apparently self-sustaining landlocked population of Sea Lamprey (*Petromyzon marinus*). The endangered fish species Pollan (*Coregonus autumnalis pollan*) is recorded from Lough Derg. Lough Derg is also a well known fishing lake with a good Trout (*Salmo trutta*) fishery. Atlantic Salmon (*Salmo salar*) also use the lake as a spawning ground.

Otter and Badger have been recorded within the site.

Land use within the site is mainly of a recreational nature with many boat hire companies, holiday home schemes and angling clubs located at the lake edge.

Recreational disturbance may pose a threat to the wintering wildfowl populations, though tourism is scaled down during the winter. The water body is surrounded mainly by improved pastoral farmland to the south and east, with areas of bog to the south-west and west. Coniferous plantations are present along the west and north-west shore and small areas of these are included within the site. If these areas are felled no further planting should take place as afforestation damages the wetland habitats between the plantation and lake edge.

The main threats to the quality of the site are water polluting activities resulting from intensification of agricultural activities around the lake shore, uncontrolled discharge of sewage, which is causing eutrophication of the lake, and housing and boating development which has resulted in the destruction of lakeshore habitats. There is also significant fishing and shooting pressure on and around the lake. Forestry can result in the loss of some areas of wetland habitat. The spread of Zebra Mussel (*Dreissena polymorpha*) in Lough Derg also poses a threat the ecology of the lake.

This is a site of significant ecological interest, with six habitats listed on Annex I of the E.U. Habitats Directive. Four of these are priority habitats - Cladium fen, alluvial woodland, limestone pavement and Yew woodland. Other annexed habitats present include alkaline fen and Juniper scrub formations on heath and calcareous grasslands. In addition, the lake itself is an SPA that supports important numbers of wintering wildfowl, Greenland White-fronted Goose, Common Tern and Cormorant, a number of which are listed under Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
5130	<i>Juniperus communis</i> formations on heaths or calcareous grasslands
7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *
7230	Alkaline fens
8240	Limestone pavements*
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*
91J0	<i>Taxus baccata</i> woods of the British Isles*

* denotes a priority habitat

Redwood Bog SAC (Site code 002353):

Redwood Bog is located 7 km south west of Banagher, mainly in the townland of Redwood, Co. Tipperary. The site comprises a raised bog that includes both areas of high bog and cutover bog. The site is bounded by the Middle Shannon Callows Special Protection Area (SPA) to the north and the River Little Brosna SPA to the north-east.

Redwood Bog has developed on the margins of the River Shannon and Little Brosna floodplains. The site can be divided into two sections, a cutover and drained western side and the eastern side that contains intact high bog. This eastern part of the site consists of two domes, which are separated to some extent by a stream that runs south to north. Hummocks and pools occur in the northern dome of the bog. The flushes in the site are found along the length of the stream.

Greenland White-fronted Goose has been recorded on the site. However, numbers of birds using the site in recent years are not known.

There has been extensive peat-cutting in the western half of the site but active cutting is minimal and has only been recorded in the north and north-west of this area. Damaging activities associated with this land use include drainage throughout the site (both old and recent) and extensive burning of the high bog. There are many indications that this site has been burnt on a regular basis. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and that pose a continuing threat to its viability.

Redwood Bog is a site of considerable conservation significance as it comprises a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats,

including hummock/hollow complexes, pools and flushes. This bog has developed on the margins of a floodplain and is one of the few remaining floodplain bogs in the country. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level. Part of the site is already a State-owned nature reserve and supports Greenland White-fronted Goose, a bird species listed on Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion

* denotes a priority habitat

Ardgraique Bog SAC (Site code 002356):

Ardgraique Bog is situated approximately 3 km north-east of Killimor, in Co. Galway, in the townlands of Ardgraique, Kilquain, Woodfield, and Lissaniska North and South. The site comprises a raised bog that includes both areas of high bog and cutover bog. It is surrounded by agricultural fields and is located within a cluster of raised bogs. The bog is just north of the Killimor-Eyrecourt road with a number of local access roads leading to the bog and one leading onto the high bog.

This site consists of a small raised bog that developed in a basin. It is actively cut on all margins. It is described as being of excellent quality with a very wet quaking surface and soft margins. The vegetation is described as uniform throughout the bog. There are few pools on this site but it has very good hummock and hollow complexes. There is a small flush to the north of the high bog area. The bog does not appear to have been burnt in over 20 years and has a good lichen flora as a result.

Current land use on the site consists of peat-cutting around most of the margins of the high bog. Areas of cutover have been reclaimed for agricultural purposes to the north of the site. Peat-cutting on the site appears to be domestic mechanised peat extraction. Damaging activities associated with these land uses include drainage around the high bog and burning of the high bog. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

Ardgraique Bog is a site of considerable conservation significance as it comprises a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site has a high diversity of raised bog plant species and supports a good diversity of raised bog microhabitats, including hummock/hollow complexes, pools, and flushes, as well as a number of scarce plant species. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Code	Description
7110	Active raised bogs*
7120	Degraded raised bogs still capable of natural regeneration
7150	Depressions on peat substrates of the Rhynchosporion

* denotes a priority habitat

4.1.2. Special Protection Areas

Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC as amended 2009/147/EC) - referred to as the Birds Directive - by the DoAHG due to their conservation value for birds of importance in the European Union. Including the site that runs through the Plan area which is detailed below, there are three SPAs within 15km of the Plan area. The characteristics of these sites are summarised and then their conservation objectives are listed.

Lough Derg (Shannon) SPA (Site Code 004058):

Lough Derg is the largest of the Shannon Lakes, being some 40 km long. Its maximum breadth across the Scarriff Bay -Youghal Bay transect is 13 km but for most of its length it is less than 5 km wide. The lake has many small islands, especially on its western and northern sides. The shoreline is often fringed with swamp vegetation. Aquatic vegetation includes a range of charophyte species, including the Red Data Book species, *Chara tomentosa*. The shoreline is often fringed by swamp vegetation, comprised of such species as Common Reed (*Phragmites australis*), Great Fen-sedge (*Cladium mariscus*) and Bottle Sedge (*Carex rostrata*).

Lough Derg is of importance for both breeding and wintering birds. In winter, the lake is important for a range of waterfowl species.

Lough Derg is of conservation interest for its fish and freshwater invertebrates. Lampreys, listed on Annex II of the E.U. Habitats Directive, are known to occur and the lake contains a landlocked population of Sea Lamprey (*Petromyzon marinus*). The endangered fish species Pollan (*Coregonus autumnalis pollan*) is recorded from Lough Derg, one of only four sites (L. Neagh, L. Erne, L. Ree and L. Derg) in which it occurs. Lough Derg is also a well-known fishing lake with a good Trout (*Salmo trutta*) fishery. Atlantic Salmon (*Salmo salar*) also use the lake as a spawning ground.

Lough Derg was classified as being strongly eutrophic in the early 1990s. Since 1997, a monitoring programme on the Shannon lakes has shown that the symptoms of eutrophication previously documented (i.e. high chlorophyll level and reduced water visibility) have been ameliorated significantly. These reductions have coincided with the invasion of the Shannon system by the Zebra Mussel (*Dreissena polymorpha*), a species which feeds on plankton, and also with measures to reduce phosphorus in sewage plants in the catchment. Enrichment of the lake, both by agricultural run-off and sewage, remains a threat and could affect the bird populations, especially the diving duck. Whilst

the presence of Zebra Mussel in Lough Derg appears to have improved water quality in the lake, in the long-term this invasive bivalve may threaten the ecology of the lake. Recreational activities presently cause some disturbance to the birds and an increase in such activities would be of concern.

Lough Derg SPA is of high ornithological importance as it supports nationally important breeding populations of Common Tern, Cormorant, Great Crested Grebe, and probably Tufted Duck and Black-headed Gull. In winter, it has nationally important populations of Tufted Duck and Goldeneye, as well as a range of other species including Whooper Swan. The site is still used on occasions by Greenland White-fronted Goose. The presence of Common Tern, Whooper Swan and Greenland White-fronted Goose is of particular note as these are listed on Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A017	Cormorant	<i>Phalacrocorax carbo</i>
A061	Tufted Duck	<i>Aythya fuligula</i>
A067	Goldeneye	<i>Bucephala clangula</i>
A193	Common Tern	<i>Sterna hirundo</i>

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, "Wetland and Waterbirds" may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest.

Thus, a second objective is included as follows:

Objective: To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derg (Shannon) SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

River Little Brosna Callows SPA (Site Code 004086):

The River Little Brosna Callows SPA follows the River Brosna from its confluence with the River Shannon for approximately 9 km south-eastwards to just beyond New Bridge on the R438 road. The site extends along both sides of the river. The main habitat is the extensive area of low-lying callow grassland in the floodplain of the river. These grasslands are subject to prolonged flooding in winter, early spring and occasionally in summer. A wide range of callow grassland is present, with the vegetation influenced by the exact flooding regime, the peat content of the soil and the intensity of agricultural improvement.

The River Little Brosna Callows is an internationally important site for wintering waterfowl, being notable both for numbers and diversity of species. The callows are also of importance for breeding waders.

The grassland in the site is used mainly for pasture, but some is also used for silage or occasionally hay-making. The intensification of agriculture in recent years, with earlier mowing and the replacement of hay with silage, is likely to have caused the decline and

eventual absence of breeding Corncrake, and may be affecting numbers of breeding waders, especially Lapwing which formerly bred here. Any attempts at further drainage to reduce the extent of winter flooding could be damaging for the birds. Some shooting occurs on the site. Part of the site is a Wildfowl Sanctuary.

The River Little Brosna Callows SPA is one of the top sites in the country for wintering waterfowl. It is of international importance on account of the total numbers of birds that use it, as well as for its Greenland White-fronted Goose and Black-tailed Godwit populations. In addition, there are a further seven species with nationally important populations, several of which are the largest in the country. Also of note is that three of the species which occur regularly, i.e. Whooper Swan, Greenland White-fronted Goose and Golden Plover, are listed on Annex I of the E.U. Birds Directive.

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A038	Whooper Swan	<i>Cygnus cygnus</i>
A050	Wigeon	<i>Anas penelope</i>
A052	Teal	<i>Anas crecca</i>
A054	Pintail	<i>Anas acuta</i>
A056	Shoveler	<i>Anas clypeata</i>
A140	Golden Plover	<i>Pluvialis apricaria</i>
A142	Lapwing	<i>Vanellus vanellus</i>
A156	Black-tailed Godwit	<i>Limosa limosa</i>
A179	Black-headed Gull	<i>Chroicocephalus ridibundus</i>
A395	Greenland White-fronted Goose	<i>Anser albifrons flavirostris</i>

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, "Wetland and Waterbirds" may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest.

Thus, a second objective is included as follows:

Objective: To maintain or restore the favourable conservation condition of the wetland habitat at River Little Brosna Callows SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Middle Shannon Callows SPA (Site Code 004096):

The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone (at southern point of Lough Ree) to the town of Portumna (northern point of Lough Derg). The Shannon Callows has a common boundary with two other sites of similar habitats, the River Suck Callows and the Little Brosna Callows, both of which are also Special Protection Areas.

The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. Two habitats listed on Annex I of the EU Habitats Directive are well represented within the site – Molinia meadows and lowland hay meadows. In places these two habitats grade into one another. Two legally-protected plant species (Flora (Protection) Order 1999) occur in the site: Opposite-leaved Pondweed (*Groenlandia densa*) in drainage ditches, and Meadow Barley (*Hordeum secalinum*) on dry alluvial grassland. The Red Data Book plant Green-winged Orchid (*Orchis morio*) is known from dry calcareous grasslands within the site, while the site also supports a healthy population of Marsh Pea (*Lathyrus palustris*).

The Middle Shannon Callows qualifies as a site of International Importance for wintering waterfowl both on the total numbers and for the Whooper Swan population. Whooper Swan is listed on Annex I of the EU Birds Directive. The site is also of national importance for breeding waterfowl.

The Shannon Callows continues to hold approximately 40% of the Irish population of Corncrake, a species of global conservation concern that is also listed on Annex I of the EU Birds Directive.

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse. In winter the site is internationally important for the total numbers of birds (regularly exceed 20,000) and for Whooper Swan in particular. It also holds nationally important populations of a further five species. Some of the wintering species are listed on Annex I of the EU Birds Directive, including Whooper Swan, Greenland White-fronted Goose and Golden Plover. In summer the site supports important populations of breeding waders. Perhaps the most important species which occurs in the site is Corncrake (the site holds 40% of the national total), as this is listed on Annex I of the EU Birds Directive and is Ireland's only globally endangered species.

Main conservation objective:

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A038	Whooper Swan	<i>Cygnus cygnus</i>
A050	Wigeon	<i>Anas penelope</i>
A122	Corncrake	<i>Crex crex</i>
A140	Golden Plover	<i>Pluvialis apricaria</i>
A142	Lapwing	<i>Vanellus vanellus</i>
A156	Black-tailed Godwit	<i>Limosa limosa</i>
A179	Black-headed Gull	<i>Chroicocephalus ridibundus</i>

To acknowledge the importance of Ireland's wetlands to wintering waterbirds, "Wetland and Waterbirds" may be included as a Special Conservation Interest for some SPAs that have been designated for wintering waterbirds and that contain a wetland site of significant importance to one or more of the species of Special Conservation Interest.

Thus, a second objective is included as follows:

Objective: To maintain or restore the favourable conservation condition of the wetland habitat at Middle Shannon Callows SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

All Saints Bog SPA (Site Code 004103):

There is no site synopsis available for this site. The reader is referred back to the site synopsis for the All Saints Bog and Esker SAC (Site code 000566).

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A395	Greenland White-fronted Goose	<i>Anser albifrons flavirostris</i>

Slieve Aughty Mountains SPA (Site Code 004168):

The Slieve Aughty Mountains SPA is a very large site that extends southwards from just south of Lough Rea, County Galway to Scariff in County Clare. The peaks are not notably high or indeed pronounced; the site rises to a maximum of 378 m near Cappaghbaun Mountain. It site includes many small- and medium-sized lakes, notably Lough Graney and Lough Atorick; several important rivers rise in the site, including the Owendalulleagh and Graney. Lough Derg occurs immediately to the south-east. The Slieve Aughty hills are predominantly comprised of Old Red Sandstone, but outliers of Lower Palaeozoic rocks provide occasional outcrops capping the hills.

The site consists of a variety of upland habitats, though approximately half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. Almost one-third of the site is unplanted blanket bog and heath, with both wet and dry heath present. Well-developed blanket bog occurs at several locations.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier and Merlin.

The SPA is a stronghold for Hen Harriers and supports the second largest concentration in the country. The site also supports a breeding population of Merlin, a species that is also listed on Annex I of the E.U. Birds Directive. Red Grouse is found on many of the unplanted areas of bog and heath – this is a species that has declined in Ireland and is now Red-listed.

The main threat to the long-term survival of Hen Harriers within the site is further afforestation, which would reduce and fragment the area of foraging habitat, resulting in possible reductions in breeding density and productivity. The Slieve Aughty Mountains have a number of large wind farm developments but it is not yet known if these have any adverse impacts on the Hen Harriers.

Overall, the site provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top two sites in the country for the species.

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	Common Name	Scientific Name
A082	Hen Harrier	<i>Circus cyaneus</i>
A098	Merlin	<i>Falco columbarius</i>

4.1.3. Ecological Network Supporting Natura 2000 Sites

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as “stepping stones” between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account during the rest of the AA process.

Areas of conservation concern supporting species using the Natura 2000 sites considered within the 15 km zone of influence is presented in Table 4.2.

Table 4.2. Areas of conservation concern supporting species using the Natura 2000 sites considered.

Site Name	Site Code	Distance from Plan (km)	Species Connectivity
Lough Derg pNHA	000011	0	Considered under Natura 2000
River Shannon Callows pNHA	000216	0	Considered under Natura 2000
Capira/Derrew Bog NHA	001240	2.97	None
Friar's Lough pNHA	000933	3	None
Barroughter Bog pNHA	000231	3.83	None
Kilcarren-Firville Bog pNHA	000647	5.31	None
Lorrha Bog NHA	001684	5.53	None
Cloonmoylan Bog pNHA	000248	5.7	None
Spring Park Wetlands pNHA	000941	6.3	None
Meeneen Bog NHA	000310	6.75	None
Rosturra Wood pNHA	001313	6.98	None
Ardgraique Bog pNHA	001224	7.18	None
Ballymacegan Bog NHA	000642	7.48	None
Lough Avan pNHA	001995	8.13	None
Redwood Bog pNHA	000654	8.2	None
Fiagh Bog pNHA	000932	8.95	None

Pollnacknockaun Wood Nature Reserve pNHA	000319	9.16	None
Cloonoolish Bog NHA	000249	9.2	None
Arragh More Bog NHA	000640	9.34	None
Derrycrag Wood Nature Reserve pNHA	000261	9.74	None
Moorfield Bog NHA	001303	9.99	None
Newchapel Turlough pNHA	000653	10.43	None
Liskeenan Fen pNHA	001683	10.56	None
River Little Brosna Callows NHA	000564	10.63	None
Slieve Aughty Bog NHA	001229	11.04	None
Ballyduff/Clonfinane Bog pNHA	000641	11.23	None
Derryoover Bog NHA	002379	12.05	None
Eskerboy Bog NHA	001264	12.45	None
Clareen Lough pNHA	000929	13.58	None
Scohaboy Bog NHA	000937	13.6	None
Cloghanbeg pNHA	002059	13.96	None
Killeen Bog NHA	000648	14.16	None
All Saints Bog And Esker pNHA	000566	14.35	None
Willsborough Esker pNHA	000943	14.45	None

5. Identification of Potential Impacts & Assessment of Significance

5.1. Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Development Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions. In practice and as outlined in the EU document "Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC", and the national guidance document 'Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities', impacts that could potentially occur through the implementation of the proposed Development Plan can be categorised under a number of headings:

- Habitat loss within Natura 2000 site,
- Direct species mortality,
- Disturbance of species during construction,
- Disturbance of species due to active/passive recreation,
- Disturbance due to lighting,
- Surface water run off during construction,
- Surface water run off from increased hard standing areas,
- Disturbance of watercourses due to diversions, culverting,
- Water Supply,
- Wastewater treatment plant capacity.

In order to identify those sites that could be potentially affected, it is necessary to describe the Natura 2000 site in the context of why it has been designated i.e. in terms of its Qualifying Interests and the environmental and ecological conditions that maintain the condition of these features. The underpinning conditions that are required to maintain the 'health' of these features are listed in Table 5.1 below.

Table 5.1. Qualifying Interests and Key environmental conditions supporting site integrity.

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
Active raised bogs	Surface water supply. Low nutrient, acidic conditions to support growth of <i>Sphagnum</i> spp. Restricted drainage at perimeter.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Inappropriate management.
Alkaline fens	High water table. Ground surface water supply. Calcium-rich conditions.	Groundwater dependant. Highly sensitive to hydrological changes. Changes in nutrient or base status
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*	Riparian/lacustrine habitat prone to flooding.	Grazing, Invasive Species, Drainage, Planting of nonnative conifers, felling of native tree species.
* Bog woodland	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.	Drainage, peat cutting, burning and development.
* Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i>	Groundwater dependent. Highly sensitive to hydrological changes. Changes in nutrient or base status.	Peat or turf cutting, arterial drainage, local drainage and agricultural reclamation, infilling of sites with building waste, dumping of household refuse, afforestation, water pollution and urban expansion.
Degraded raised bogs still capable of natural regeneration	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.	Changes in agricultural practices; afforestation and general forest management; burning; peat extraction; drainage; and the introduction of invasive species.
Depressions on peat substrates of the <i>Rhynchosporion</i>	Surface and groundwater dependent. Low sensitivity to hydrological changes. Erosion, land-use changes.	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.
Hen Harrier <i>Circus cyaneus</i>	Breeding birds are confined to moorland and young forestry plantations, where they nest on the ground. Hen Harriers mainly hunt over moorland whilst breeding where they take ground nesting birds and mammals. Based on a 2010 national survey Ruddock et al. (2012) estimated the population to be 128 to 172 breeding pairs. Very low rates of polygyny were observed (<1%) and therefore this reported figure corresponds to an estimate of	Forest planting on open ground. Forest and plantation management & use. Modification of cultivation practices. Renewable abiotic energy use. Fire and fire suppression. Leisure activities. Hunting and collection of wild animals. Mining. Invasive species.

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	breeding females occurring in Ireland in 2010.	
<i>Juniperus communis</i> formations on heaths or calcareous grasslands	Onset of inundation or water logging Inappropriate management.	Overgrazing; fire; agricultural expansion; invasion by alien species particularly <i>Rhododendron ponticum</i> ; and poor regeneration.
* Limestone pavements	Physical removal. Scrub encroachment	Quarrying, reclamation for agriculture and reduced farming activity which has facilitated the spread of scrub over some areas. Intensive agriculture and domestic/municipal waste sources in the vicinity of pavement may also threaten groundwater.
Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status.	Agricultural intensification; drainage; abandonment of pastoral systems
Merlin <i>Falco columbarius</i>	Nests on the ground on moorland, mountain and blanket bog. Also nests in woodland and has taken to nesting in forestry plantations adjacent to moorland. To date there has been no systematic national survey undertaken for Merlin. Based largely on expert opinion (BWI) the estimated population is 200 – 400 pairs.	Forest planting on open ground. Modification of cultivation practices. Changes in biotic conditions. Renewable abiotic energy use. Forest and Plantation management & use.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>)	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status.	Agricultural intensification; drainage; abandonment of pastoral systems
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	Changes in management. Changes in nutrient or base status. Introduction of alien species.	The introduction of alien species; sub optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to oak woodlands; and the construction of communication networks through the woodland.
Otter	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways.	Decrease in water quality: Use of pesticides; fertilization; vegetation removal; professional fishing (including lobster pots and fyke nets); hunting; poisoning; sand and gravel extraction; mechanical removal of peat; urbanised areas; human habitation; continuous urbanization; drainage; management of aquatic and bank vegetation for drainage purposes; ; and canalization or modifying structures

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
		of inland water course.
Orchid-rich Calcareous Grassland	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.	The main threats to this habitat include the abandonment of traditional agricultural practices and reclamation.
Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites)	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.	The main threats to this habitat include the abandonment of traditional agricultural practices and reclamation.
Taxus baccata woods	Changes in management. Changes in nutrient or base status. Introduction of alien species.	The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to woodlands; and the construction of communication networks through the woodland.
* Turloughs	Surface and Groundwater dependent. Highly sensitive to hydrological changes. Changes in nutrient or base status.	Nutrient enrichment and inappropriate grazing; drainage, peat cutting; marl extraction and quarrying.
Wetlands & Waterbirds	Highly sensitive to hydrological changes and loss of wetland habitat. Sensitive to disturbance.	A number of pressures have been identified by Crowe (2005). These pressures include: the modification of wetland sites, particularly for industry or housing and increased levels of disturbance, largely related to recreational activity. Eutrophication at a number of wetland sites as a result of nutrient inputs from a range of polluting activities were also identified as a potential pressure. However this latter pressure is now being alleviated through stricter control of activities associated with water discharge/runoff etc. Climate change was also noted as a significant factor underlying changes in trends of wintering waterbirds in Ireland.
Cormorant (<i>Phalacrocorax carbo</i>) A017 (breeding) 004058	Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although eutrophication not necessarily a threat to this species). Water pollution. Disturbance. In 2012 it was estimated that the Irish breeding population numbered 4,366 pairs and the short-term population trend is stable.	Urbanization: Collision from powerlines and wind turbines Human interference: Pollution of aquatic habitats. Disturbance and persecution at nesting colony sites (to which this species is very loyal). Persecution by fisheries interests. (Lough Derg (Shannon) SPA Natura 2000 Form)

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	<p>Cormorant are currently Amber-listed due to a moderate (35-69%) decline in breeding range and a localized breeding population (Colhoun & Cummins 2013). The European population (EUR25) of this species is assessed as Secure and there have been large increases in both wintering and breeding populations (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with an increasing population trend (BirdLife International 2012).</p>	
<p>Whooper Swan (<i>Cygnus cygnus</i>) A038 (wintering) 004096</p>	<p>Management practices of grasslands. Hydrological changes. Changes to wetland structure and distribution. Disturbance.</p> <p>In 2010, the Rol wintering population of this species was estimated at 10,520 birds, of which 4,170 are within the SPA network. There have been both long and short-term population increases. Whooper Swans are currently Amber-listed in Ireland due to the hosting of more than 20% of the European wintering population, the majority of which winter at ten or less sites (Colhoun & Cummins 2013). Furthermore, this species relies on a very small breeding population internationally. Consequently, this species is listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC). BirdLife International has, however, assessed the European population of this species as Secure owing to its extensive range and large numbers which have experienced a recent increase (BirdLife International 2004). Similarly, this species has been listed as Least Concern by (BirdLife International 2012).</p>	<p>Urbanization: Collision from powerlines and wind turbines</p> <p>Climate change, dispersed habitation, Change of land use: (e.g. from grazing to silviculture)</p> <p>Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot. Deliberate and accidental disturbance from farmland feeding sites (reseeded fields and winter cereals). (Bolland <i>et al.</i>, 2010, Middle Shannon Callows SPA Natura 2000 Form)</p>
<p>Wigeon (<i>Anas penelope</i>) A050 (wintering) 004096</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands Climate change & weather conditions.</p> <p>Wintering Wigeon are currently Red-listed in Ireland due to a long-term decline in the non-breeding population (Colhoun & Cummins</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Extent of flooding on the Shannon callow system influences numbers.</p> <p>Agricultural change of practice: changing wetland management practices (decreased grazing and</p>

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	<p>2013). In 2011, the RoI wintering population was estimated at 56,350 birds, of which 43,746 were recorded within the SPA network. There have been both short-term and long-term wintering population declines and a short-term population decline within the SPA network. The European (EUR25) population of this species as Secure and both breeding and wintering populations were classified as Stable (BirdLife International 2004). Globally, this species is considered to be of Least Concern, albeit with a decreasing population trend, due to its large world population and huge population range.</p>	<p>mowing in meadows leading to scrub over-growth) Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports Urbanization: Collision from powerlines and windturbines Predation: Primarily from foxes, pine marten, and American mink (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form)</p>
<p>Tufted Duck (<i>Aythya fuligula</i>) A061 (wintering) 004058</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although eutrophication not necessarily a threat to this species). Water pollution. Disturbance.</p> <p>Tufted Duck is currently Red-listed in Ireland due to a short-term decline in the non-breeding population (Colhoun & Cummins 2013). In 2012 it was estimated that the Irish wintering population numbered 20,980 birds, 15,540 of which were within the SPA network. Short-term (i.e. last 12 years) population trend is increase (stable within the SPA network) and the long-term (i.e. since c. 1980) trend is unknown. The European population (EUR25) of this species is assessed as Declining and there have been moderate declines in both wintering and breeding populations (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with a stable population trend (BirdLife International 2012).</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Migratory short stopping in response to warmer winters could cause long-term decline of wintering population (wintering population range has already shifted north-eastwards). Human interference: Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports Urbanization: Collision from power lines and wind turbines. (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form, Tomankova et al., 2013)</p>
<p>Goldeneye (<i>Bucephala clangula</i>) A067 (wintering) 004058</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands (although eutrophication not necessarily a threat to this species). Water pollution. Disturbance.</p> <p>Goldeneye is currently Red-listed in Ireland due to a short-term decline in the non-breeding population</p>	<p>Climate change & Weather conditions: Cold snaps can influence overwintering location from Ireland to UK. Migratory short stopping in response to warmer winters could cause long-term decline of wintering population (wintering population range has already shifted north-eastwards). Human interference:</p>

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	<p>(Colhoun & Cummins 2013). In 2012 it was estimated that the Irish wintering population numbered 1,940 birds, 1,308 of which were within the SPA network. Both short-term (i.e. last 12 years) and long-term (i.e. since c. 1980) population trends are decreasing, as is the short-term trend within the SPA network. The European population (EUR25) of this species is assessed as Secure, the wintering population is considered Stable and there has been a moderate increase in the breeding population (BirdLife International 2004). Globally, this species has been listed as being of Least Concern, with a stable population trend (BirdLife International 2012).</p>	<p>Hunting and Pollution including poisoning from embedded or ingested lead shot, disturbance, leisure fishing and nautical sports</p> <p>Urbanization: Collision from power lines and wind turbines. (Birdlife International, Boland & Crowe, 2012, Middle Shannon Callows SPA Natura 2000 Form, Tomankova et al., 2013)</p>
<p>Corncrake (<i>Crex crex</i>) A122 (breeding) 004096</p>	<p>Management practices of habitat: loss of hay-meadows and wetlands; intensification of grassland management; loss of habitat through vegetation succession/land abandonment; insufficient extent and design of conservation measures.</p> <p>In 2012, the RoI breeding population was counted at 135 calling males. There have been both short and long-term population declines, along with a long-time population range decline (the short-term range trend is Stable). Currently this species is Red-listed in Ireland due to significant declines in range and population (Colhoun & Cummins 2013). Additionally, though it is listed on the IUCN Red List of Threatened Species in the Least Concern category (with a stable population trend), following upward revisions of the global population estimates (BirdLife International 2012), Corncrakes are listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC) due to declines in range and population throughout Europe. The European population (EUR25) of this species is assessed as Depleted, the breeding population trend has recently shown a large increase (BirdLife International 2004).</p>	<p>Agricultural intensification/change of practices : Irish decline was first started by the introduction of faster growing grass varieties that allowed earlier mowing for hay and later by the introduction of silaging, which in many places has replaced the saving of hay. Nest destruction, early mowing being the most important threat; increased chick mortality during mowing, adult mortality during mowing. Ploughing and neglect of hay meadows. (AEWA Single species action plan Corncrake, Crowe, 2005, Middle Shannon Callows SPA Natura 2000 Form).</p>
<p>Golden Plover (<i>Pluvialis apricaria</i>)</p>	<p>Afforestation and intensification of farming practices.</p>	<p>Urbanisation: Loss/modification of wetland,</p>

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
A140 (wintering) 004096	<p>The Golden Plover is Red-listed in Ireland (Lynas et al. 2007; Colhoun & Cummins 2013), due to large declines in its breeding population and breeding range and more recent declines in wintering populations. The European population is considered Secure. Though declines were recorded in several populations in Western Europe, this was compensated for by increases in its Finnish population and stability elsewhere (BirdLife International 2004). This is further regarded as being of Least Concern internationally by the IUCN (BirdLife International 2012). Given its significant regional declines, this species is also listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC). It is thought that the southern extremities of its European breeding range (including populations in Ireland and the UK) have been in decline since the 19th Century (Tucker & Heath 1994).</p>	<p>peatland, collision risk from power lines and wind-turbines. Agricultural intensification/change of practices: Loss of peatland & farmland habitat. Burning of peatland and overgrazing by sheep. Afforestation Climate change: Widescale departures of Golden Plover with the onset of severe winter cold have been noted from the British Isles could result in increased winter mortality (Wernham <i>et al.</i> 2002) Warm and dry autumns could become the norm in southern England and Ireland which could favour rapid growth of winter cereals to heights which are unfavourable, thereby causing rapid abandonment by Golden Plovers (Mason & Macdonald, 1999) Human interference: hunting, disturbance, leisure fishing and nautical sports Predation: (EU management plan – Golden Plover 2009-2011, Middle Shannon Callows SPA Natura 2000 Form)</p>
Lapwing (<i>Vanellus vanellus</i>) A142 () 004096	<p>Management practices of grasslands. Hydrological changes. Changes to wetland structure and distribution. Disturbance.</p> <p>Breeding Lapwings are Red-listed in Ireland due to long-term declines in this breeding population (Colhoun & Cummins 2013). In 2008, the RoI breeding population was estimated at 2,000 pairs. There have been both long and short-term population and breeding range declines. The European population, previously regarded as Secure, is now listed as Vulnerable (BirdLife International 2004) owing to a more than 30% decline in overall breeding numbers. Despite these large declines, the global population of this species remains high and is regarded as being of Least Concern by the IUCN (BirdLife International 2012).</p>	<p>Agricultural intensification: Fertiliser, drainage, loss of traditional farming practices, pesticides Urbanisation: Loss of habitat, powerlines & wind turbine collision, Pollution: Deposition of nutrients, particularly nitrogen compounds, can lead to unfavourable changes in vegetation structure and generally increase vegetation growth, to the detriment of Lapwings. Predation Human disturbance: leisure fishing and nautical sports, Climate change Winter flooding improves conditions for breeding Lapwing by keeping sward short and open and by creating suitable, wet feeding areas (Ausden <i>et al.</i> 2001). (EU management plan Lapwing 2009-2011, Middle Shannon Callows SPA Natura 2000 Form)</p>
Black-tailed Godwit (<i>Limosa limosa</i>) A156 (wintering) 004096	<p>Sensitive to hydrological changes and loss of wetland habitat. Changes in the nutrient levels of wetlands.</p>	<p>Urbanisation: Loss of habitat, powerlines & wind turbine collision, Pollution:</p>

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	<p>Black-tailed Godwit occurs in internationally important numbers in Ireland. It is Amber-listed. With fewer than three pairs of Black-tailed Godwit proven breeding in recent years (Hillis 2010, 2011, 2012 in Colhoun & Cummins 2013) this species now qualifies under the rare breeder category. In 2011, the RoI wintering population was estimated at 18,080 birds and both the short and long-term population trends were increasing. The European population is considered to be Vulnerable; the breeding population trend is of large decline and the wintering population trend is of moderate decline (BirdLife International 2004). Globally, the population of this species is considered Near Threatened and the population trend is decreasing (BirdLife International 2012).</p>	<p>habitat change (e.g. reduction in prey density) due to reductions in organic loadings to wetlands caused by the introduction of, or improvement to, waste-water treatment plants.</p> <p>Invasive species: Zebra mussel filtration of phytoplankton and suspended particulate resulting in a reduction of invertebrates could impact on food source of larval fish. This could impact on fish food sources</p> <p>Predation Human disturbance: leisure fishing and nautical sports, Climate change: (EU management plan for Black-tailed godwit 2007-2009, Middle Shannon Callows SPA Natura 2000 Form)</p>
<p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A179 () 004096</p>	<p>Sensitive to hydrological changes and loss of wetland habitat. Nest predation. Pollution at sea.</p> <p>Though significant populations exist elsewhere in the Palaearctic, breeding Black-headed Gulls have been placed on the Red-list of Birds of Conservation Concern in Ireland since 2007, owing to a rapidly declining and localised breeding population (Lynas et al. 2007; Colhoun & Cummins 2013). The European population of this species is regarded as Secure, despite declines in several countries (BirdLife International 2004). The aggregate global population of this species has been assessed as Least Concern (BirdLife International 2012).</p>	<p>Predation: Inland breeding sites affected by the spread of American Mink. Agricultural intensification: Drainage Urbanisation: Loss of wetland habitat, powerlines & wind turbine collision Nutrification: Black-headed Gulls frequently forage at WWTP outfalls. They undoubtedly benefit from artificial food sources (Burton et al. 2001) supplied by WWTPs Invasive species: Zebra mussel filtration of phytoplankton and suspended particulate resulting in a reduction of invertebrates could impact on food source of larval fish. This could impact on fish food sources. (Craik, 1997, Middle Shannon Callows SPA Natura 2000 Form)</p>
<p>Common Tern (<i>Sterna hirundo</i>) A193 (breeding) 004058</p>	<p>Sensitive to wetland habitat loss. On the breeding grounds, this species is sensitive to disturbance from outdoor leisure activities, to coastal erosion and development, to natural flooding, to predation at nest sites (large gulls and mink) and vegetation overgrowth. Pollution at sea.</p> <p>Common Tern is in the BoCCI Amber list due to a moderate</p>	<p>Predation: Inland breeding sites affected by the spread of American Mink and large gull breeding sites. Agricultural intensification: Drainage Urbanisation: Loss of wetland habitat, powerlines & wind turbine collision. Climate Change Climate change could lead to scarcity of food supplies and sea</p>

Qualifying Interests	Key environmental conditions supporting site integrity	Current Threats to Qualifying Interests
	<p>decline in breeding range and a localized breeding population. This species is also listed under Annex I of the EC Council Directive on the Conservation of Wild Birds (2009/147/EC). In 2012 it was estimated that the Irish breeding population numbered 4,887 birds, short and long-term breeding population trends were both increasing, as were the long and short-term breeding range trends. The European population of this species is regarded as Secure (BirdLife International 2004). The aggregate global population of this species has been assessed as Least Concern (BirdLife International 2012), albeit with a decreasing population trend.</p>	<p>level rises could lead to nest flooding and loss of breeding sites.</p>

In terms of the Portumna Local Area Plan, the following generic threats have been identified:

Rural/Agricultural activities

Restructuring agricultural land holdings;
 Drainage/flooding;
 Pesticide use.

Economic and Infrastructural Development

Commercial/Mixed Use Development;
 Community Facilities Development;
 Flood Risk Areas and Land Use Zones;
 Road improvements;
 Wastewater outflows;
 Wastewater Treatment Capacity;
 Water abstraction;
 Housing developments;
 Flood Risk Management;
 Invasive Alien Species.

Recreation and Leisure

Green Network and Landscaping;
 Water-based tourism;
 New Paths and Tracks;
 Walking, horse riding and non-motorised vehicles.

5.2. Assessment of Potential Cumulative Effects

Cumulative impacts or effects are changes in the environment that result from numerous human-induced, small-scale alterations. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region must also be considered at this stage. This step aims to identify at this early stage any possible significant in-combination or cumulative effects / impacts of the proposed development with other such plans and projects on the Natura 2000 sites.

This step aims to identify at this early stage any possible significant in-combination or cumulative effects/impacts of the proposed Portumna LAP with other such plans and projects on the relevant Natura 2000 sites and their conservation interests.

Other plans and projects specific to this area which potentially could give rise to significant effects on the relevant Natura 2000 sites are the following:

- Galway County Development Plan 2015 – 2021
- Western Regional Planning Guidelines 2010-2022
- Replacement Connacht Waste Management Plan
- National Spatial Strategy
- Western RBD Management Plan
- Irish Water Capital Investment Plan 2014-2016
- Inland Fisheries Ireland Corporate Plan 2011-2015
- Groundwater Pollution Reduction Programme
- Galway County Heritage Plan 2009-2014
- Galway County Biodiversity Plan 2008 – 2013
- OPW Flood Risk Management Strategies and Arterial Drainage Schemes are subject to SEA, EIA and Appropriate Assessment as required

A review of the Galway County Council Planning webpage revealed that there have been 40 other applications for the entry “Portumna” for the last three years to date.

Development within the Plan area will have to demonstrate the capacity of the wastewater treatment system proposed to deal with wastewater without impacting the surface and groundwater resource in the zone of influence and to comply with flood impact assessment directives.

Any new applications for the project area will be assessed on a case by case basis by Galway County Council which will determine the requirement for AA Screening as per the requirements of Article 6(3) of the Habitats Directive.

An assessment of the cumulative or in-combination effects of the Plan is presented in Table 5.2 below.

Table 5.2. Outlining the potential in-combination impacts of the Plan in the absence of mitigation.

Site	Potential Impacts from the Plan	Risk of Significant Effect	In-Combination Effects	Significant Risk In-Combination
River Shannon Callows SAC	The River Shannon, with this associated SAC, forms the eastern boundary of the LAP with the southern (downstream) extent of the SAC terminating at the south east of the LAP. In-combination impacts are possible arising from upstream areas in terms of reduced water quality and effects on the conservation objectives of the SAC which rely on good water quality status.	Yes	Galway, Tipperary & Offaly, County Development Plans, River Basin Management Plans, Waste Water Discharge to the River Shannon.	Yes
Lough Derg, North-East Shore SAC	This SAC boundary starts at Portumna and In-combination impacts are possible arising from combined upstream and downstream sources in terms of reduced water quality and effects on the conservation objectives of the SAC which rely on good water quality status.	Yes	Galway, Tipperary & Offaly, County Development Plans, River Basin Management Plans, Waste Water Discharge to the River Shannon.	Yes
Lough Derg (Shannon) SPA	This SPA boundary starts at Portumna and In-combination impacts are possible from combined upstream and downstream sources in terms of reduced water quality and effects on the conservation Interests of the SPA which rely on good water quality status for a viable food source and roosting and nesting habitats and also in terms of disturbance from water-based leisure and tourism.	Yes	Galway, Tipperary & Offaly, County Development Plans, River Basin Management Plans, Waste Water Discharge to the River Shannon.	Yes
Middle Shannon Callows SPA	This SPA boundary ends at Portumna and In-combination impacts are possible from upstream areas in terms of reduced water quality and effects on the conservation Interests of the SPA and also in terms of disturbance from water-based leisure and tourism.	Yes	Galway, Tipperary & Offaly, County Development Plans, River Basin Management Plans, Waste Water Discharge to the River Shannon.	Yes
Barroughter Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Kilcarren-Firville Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Cloonmoylan Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Slieve Aughty Mountains SPA	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Rosturra Wood SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Ardgraique Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Redwood Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No

Pollnacknockaun Wood Nature Reserve SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Derrycrag Wood Nature Reserve SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Liskeenan Fen SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
River Little Brosna Callows SPA	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
Ballyduff/Clonfinane Bog SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
All Saints Bog And Esker SAC	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No
All Saints Bog SPA	This site is at a distance and direction unlikely to incur hydrological impacts	No	Galway, Tipperary & Offaly, County Development Plans	No

5.3. Likely Impacts on Natura 2000 Sites

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each Natura 2000 site and describes any likely significant effects of implementation of the Plan. This assumes the absence of any controls, conditions or assumption mitigation measures.

A screening matrix of potential impacts is presented in Table 5.3.

Table 5.3. Outlining the potential impacts in the absence of mitigation of the Plan.

Site	Reduction in Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Diversity	Changes in Key Indicators of Conservation Value (Water Quality etc.)	Stage 2 AA Required
River Shannon Callows SAC	No	Possible	Possible	Possible	Possible	Yes
Lough Derg, North-East Shore SAC	Possible	Possible	Possible	Possible	Possible	Yes
Lough Derg (Shannon) SPA	Possible	Possible	Possible	Possible	Possible	Yes
Middle Shannon Callows SPA	No	Possible	Possible	Possible	Possible	Yes
Barroughter Bog SAC	No	No	No	No	No	No
Kilcarren-Firville Bog SAC	No	No	No	No	No	No
Cloonmoylan Bog SAC	No	No	No	No	No	No
Slieve Aughty Mountains SPA	No	No	No	No	No	No
Rosturra Wood SAC	No	No	No	No	No	No
Ardgraique Bog SAC	No	No	No	No	No	No
Redwood Bog SAC	No	No	No	No	No	No
Pollnacknockaun Wood Nature Reserve SAC	No	No	No	No	No	No
Derrycrag Wood Nature Reserve SAC	No	No	No	No	No	No
Liskeenan Fen SAC	No	No	No	No	No	No
River Little Brosna Callows SPA	No	No	No	No	No	No
Ballyduff/Clonfinane Bog SAC	No	No	No	No	No	No
All Saints Bog And Esker SAC	No	No	No	No	No	No
All Saints Bog SPA	No	No	No	No	No	No

6. Screening Statement

The Screening process has identified that four of the Natura 2000 sites assessed have the potential to be adversely affected by the implementation of the proposed Portumna Local Area Plan 2016.

The Screening Assessment has identified that there may be potential impacts as a result of the implementation of the Plan on four sites listed below and that Stage 2 AA is required to assess the potential impacts of the Plan in detail on these sites:

- River Shannon Callows SAC
- Lough Derg, North-East Shore SAC
- Lough Derg (Shannon) SPA
- Middle Shannon Callows SPA

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