NATURA IMPACT REPORT

IN SUPPORT OF THE

APPROPRIATE ASSESSMENT

OF

LONGFORD COUNTY DEVELOPMENT PLAN 2015-2021

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

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Section 1 Introduction

1.1 Background

This is the Natura Impact Report in support of the Appropriate Assessment of the Longford County Development Plan 2015-2021 in accordance with the requirements of Article 6(3) of the EU Habitats Directive[1]. This report is divided into these four sections:

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

1.2 Legislative Context

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

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

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

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

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

These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural

[1] Directive 92/43/EEC

Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.

1.3 Stages of Appropriate Assessment

This Appropriate Assessment has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, 2009
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, European Commission Environment DG, 2000.
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*, European Commission, 2002

AA comprises up to four successive stages:

Stage One: Screening

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

Stage Two: Appropriate Assessment

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

Stage Three: Assessment of Alternative Solutions

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

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

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

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

In the case of this Natura Impact Report, it is found that the Plan only requires Stage 1 and Stage 2 assessment.

Section 2 Stage 1 Screening

2.1 Description of the Plan

The Plan is a high level plan that provides a framework for the sustainable development within County Longford. Apart from the details and zoning maps for the core settlement strategy, the plan does not prescribe the particular locations of any developments of infrastructure. Overall, the Plan underpins the development of housing, communities and urban centres with supporting transport, water, waste, energy and communication infrastructure within the County.

2.1.1 Review Process and Statutory Context

Under the Planning and Development Act, 2000, each Planning Authority is obliged to prepare a development plan for its functional area every six years, the review of which should commence four years after its adoption. Accordingly the review process of the current County Development Plan including preparation of the Longford County Development Plan 2015-2021, began in March 2013 when extensive notification of the review process was given and notice was published and forwarded to the relevant bodies.

2.1.2 Purpose of the Plan

The main purpose of the Plan is to set out a framework for the sustainable physical development of the county, while considering the conservation and protection of the built and natural environment. It also aims to carefully consider the needs of all groups and individuals within the county and promote equal opportunities.

2.1.3 Content of the Plan

The Plan has been prepared by Longford County Council and comprises of a written document with maps, and various appendices including zonings and policy for the county's settlements and county Housing and Retail Strategies.

The Plan contains a *Core Strategy* and various other strategies including those related to Settlement and Retail. Additional provisions are also included under the headings of *Economic Development*, *Infrastructure* and *Environment, Heritage and Amenities*.

2.1.4 The Plan Core Strategy and Aims

The Core Strategy contained in the Plan articulates a medium to longer term evidence and quantitatively based strategy for the spatial development of County Longford, whilst demonstrating consistency with national and regional development objectives. The strategic aims of the Core Strategy are set out as follows:

Aim 1

To provide a framework for the proper planning and sustainable development of the County over the plan period.

Aim 2

To provide alignment and integration between strategic planning and settlement policy and the prioritisation of physical infrastructure investment.

Aim 3

To build on the unprecedented growth which has occurred over recent years and maximise the economic and social benefits that can be achieved from this in a manner which is compatible with the principles of sustainable development.

Aim 4

To secure the future vitality and viability of County Longford through optimising the County's economic, social and physical development.

Aim 5

To demonstrate that the Longford County Development Plan 2015-2021 is consistent, as far as practicable, with national and regional development objectives set out in the National Spatial Strategy and Regional Planning Guidelines for the Midland Region and other national guidelines and policies.

Aim 6

To facilitate the closer alliance of County and sub-county level plans with regional policy.

Aim 7

To identify the appropriate quantum, location and phasing of development considered necessary to provide for future population growth over the plan period in accordance with the National Spatial Strategy and Midland Regional Planning Guidelines.

Aim 8

To develop this quantum of land in a manner that supports public transport and existing services.

Aim 9

To provide a framework supported by evidence based settlement strategy, for deciding on the scale, phasing and location of new development, having regard to existing services and planned investment over the coming years.

Aim 10

To provide a framework within which the provision of sustainable infrastructure, amenities, economic investment and development can take place to maximize the use of resources in the plan area.

2.2 Relationship with other relevant Plans and Programmes

2.2.1 Introduction

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

The following sub-sections reproduce text included in the Plan concerning other relevant plans and programmes to which the Plan relates.

2.2.2 The National Spatial Strategy 2002-2020

The National Spatial Strategy (NSS) was introduced in 2002 and sets out the spatial planning framework for the country. The strategy consists of a twenty year planning framework designed to achieve a better balance of social, economic, and physical development and population growth between regions in Ireland, and to assist in the implementation of the NDP. Its focus is on people and places, and on building communities.

The NSS has established a platform upon which policies can be put in place to ensure that more balanced development is achieved.

2.2.3 Midlands Regional Planning Guidelines

The Midland Regional Planning Guidelines (RPGs) were adopted in July 2010 and document the regional spatial planning context for the region, which includes the Counties of Longford, Laois, Westmeath and Offaly. National policy contained in the NSS, is translated to a regional level in the

Midland RPGs, which will guide policy making decisions at a local level through the County Development Plan (CDP).

The Midland RPGs provide population targets for Longford which are also indicated in terms of future housing land requirements for the County. This coupled with the requirements of the Planning and Development (amendment) Act 2010, ensures that CDPs are now consistent with the RPGs, whereas CDPs were previously only required to have regard to the RPGs. The 'Core Strategy' contained as part of the Longford CDP 2015-2021 is therefore central to ensuring such compliance with the RPGs.

The RPGs provide a provide a regional framework for the formulation of the policies and strategy in the CDP and define a regional development model that is based on a spatial hierarchy centred on the linked gateway of Athlone, Tullamore, and Mullingar as identified in the NSS and supported by the principal towns of Longford and Portlaoise.

Relevant to County Longford, Longford Town is described as a 'Principal Town' in the RPGs with the function of driving the northern part of the Midland Region. Granard is described as a 'Key Service Town'. The purpose of key service towns is to drive their own local economies within their area. Edgeworthstown is described as a 'Service Town' and the function of these towns is to perform important retail, residential, service and amenity functions for essentially local hinterlands and support nearby gateway and principle towns. Ballymahon and Lanesboro are described as 'Local Service Towns' and the regional guidelines envisage these towns performing important local level, residential, retailing, social and leisure functions and providing appropriate local services to a wider rural hinterland.

2.2.4 National Planning Guidelines

The Plan has considered the following guidelines;

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (2009);
- Architectural Heritage Protection – Guidelines for Planning Authorities (2004);
- Architectural Heritage Protection for Places of Worship - Guidelines for Planning Authorities (2003);
- Architecture Policy Guidelines 2009-2015;
- Best Practice Urban Design Manual (May 09) - Part 1;
- Best Practice Urban Design Manual (May 09) - Part 2;
- Childcare Facilities Guidelines for Planning Authorities (2001);
- Development Contribution Scheme for Planning Authorities – (Circular PD 5/2007);
- Development Contribution Scheme for Planning Authorities - Circular PD4/2003;
- Development Management Guidelines- Guidelines for Planning Authorities (June 2007);
- Development Plans Guidelines - Guidelines for Planning Authorities (June 2007);
- Spatial Planning and National Roads Guidelines (January 2012);
- Funfair Guidance;
- Implementation of new EPA Code of Practice on WasteWater Treatment and Disposal Systems Serving Single Houses - Circular PSSP1/10;
- Implementing Regional Planning Guidelines- Best Practice Guidance (December 2010);
- Landscape and Landscape Assessment;
- Provision of Schools and the Planning System – Code of Practice for Planning Authorities, The Department of Education and Science and the Department of the Environment, Heritage and Local Government (2008);
- Quarries and Ancillary Activities- Guidelines for Planning Authorities (2004);
- Retail Planning Guidelines;
- Section 261A of the Planning and Development Act, 2000 and related provisions, Guidelines for Planning Authorities (January 2012);
- Smarter Travel, A Sustainable Transport Future, A New Transport Policy for Ireland 2009 - 2020;
- Sustainable Rural Housing Development Guidelines (2005);
- Sustainable Rural Housing Development Guidelines - Map;
- Sustainable Residential Development in Urban Areas (May 09);

- Sustainable Urban Housing: Design Standards for New Apartment - Guidelines for Planning Authorities (2007);
- Taking in Charge of Housing Estates / Management Companies;
- Taking in Charge of Residential Developments Circular Letter PD 1/08;
- Telecommunications Antennae and Support Structures-Guidelines for Planning Authorities (1996);
- The Planning System and Flood Risk Management - Guidelines for Local Authorities (Nov 09);
- The Planning System and Flood Risk Management - Technical Appendices (Nov 09);
- Tree Preservation Guidelines;
- Waste Water Discharge (Authorisation) Regulations - Circular PD 7/09; and
- Wind Energy Development Guidelines (2006).

2.2.5 Environmental Protection Objectives

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

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

2.3 Natura 2000 Sites in and within 15 km of the Plan Area

2.3.1 cSACs and SPAs

This section of the screening process describes the Natura 2000 sites within a 15km zone of impact of the plan area. A distance of 15km is recommended in the DEHLG Guidance[2] and as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process. A map indicating the locations of the sites is given in Figure 2.1.

Tables 2.2 to 2.5 list the Natura 2000 sites that are a) within County Longford and b) within 15 km of the county boundary. The qualifying features for each site have been obtained through a review of the site synopses available from the NPWS website.

Information regarding the main threats to Natura 2000 sites was derived from a variety of sources:

- Ireland's Article 17 Report to the European Commission "Status of EU Protected Habitats and Species in Ireland" (NPWS, 2008).
- Site Synopses
- NATURA 2000 Standard Data Forms

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

[2] *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.* Department of the Environment, Heritage and Local Government (2009)

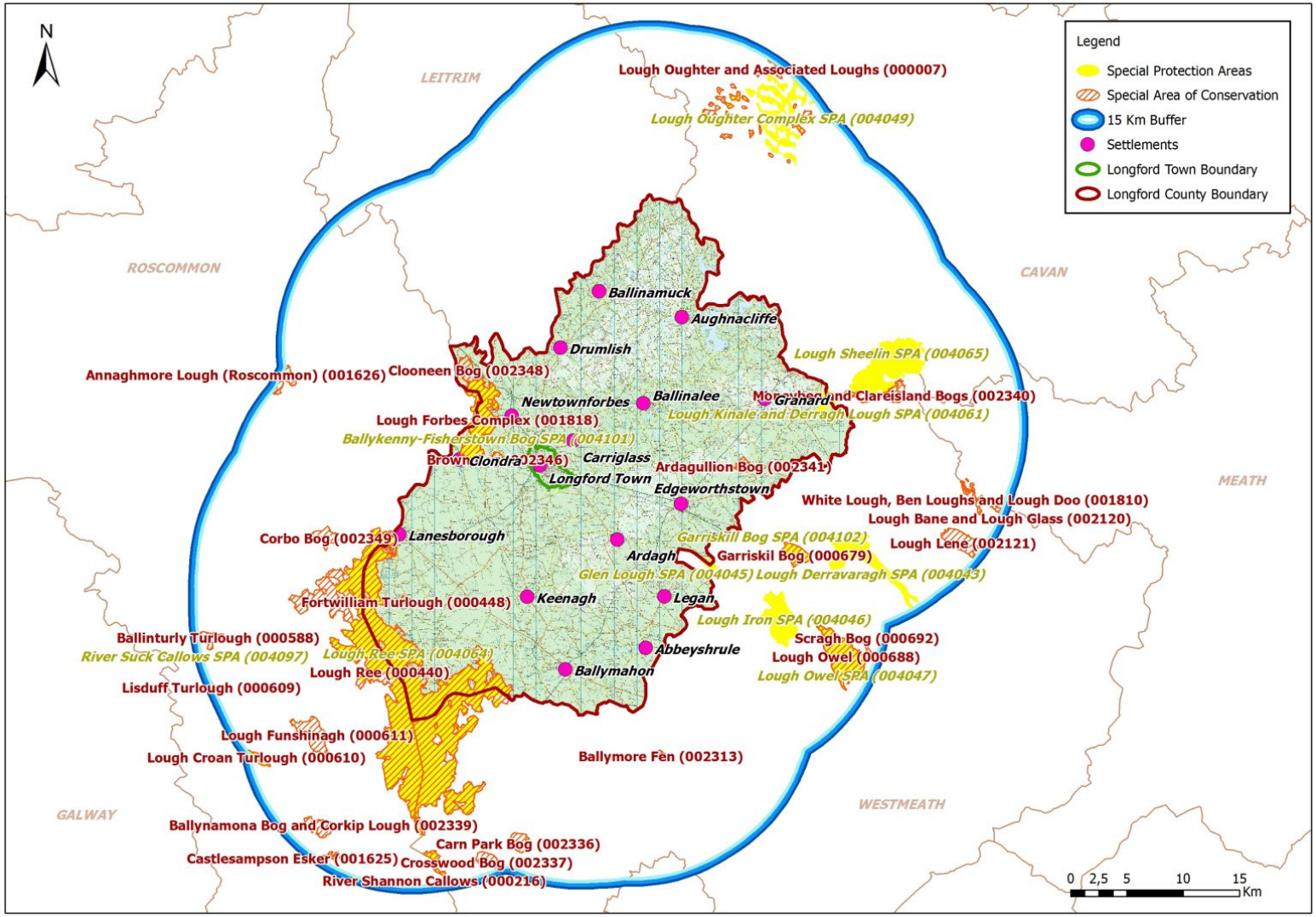

Figure 2.1 Natura 2000 sites within Co. Longford and 15km of the County Boundary

Table 2.1 cSACs in County Longford

Conservation Interests	Site Name and code	Qualifying Feature	Threats to Site Integrity
IE0000440	Lough Ree cSAC	Natural euthrophic lakes with Magnopotamion or Hydrocharition-type vegetation Alkaline fens Old sessile oak woods with Ilex and Blechnum in British Isles Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites) Degraded raised bogs still capable of natural regeneration Bog woodland Limestone pavements *Lutra lutra*	The main threat to the aquatic life in the lake is from artificial enrichment of the waters by agricultural and domestic waste, and also by peat silt in suspension, which is increasingly limiting light penetration. Increased use of the lake for leisure activities, especially boating, will cause disturbance and some physical damage to marginal wetlands. The degraded raised bog is threatened by further cutting, burning and afforestation. Landuses within the site include recreation in the form of cruiser hire, angling, camping, picnicking and shooting. Chalet accommodation occurs at a few locations around the lake. Low-intensity grazing occurs on dry and wet grassland around the shore and some hay is made within the site. Some of these activities are damaging, but in a very localised way, and require careful planning. The main threat to the aquatic life in the lake comes from artificial enrichment of the waters by agricultural and domestic waste, and also by peat silt in suspension which is increasingly limiting the light penetration, thus restricting aquatic flora to shallower waters.
IE0000448	Fortwilliam Turlough cSAC	Turloughs	Fortwilliam is the most important turlough in Co. Longford and one of only two good examples east of the Shannon. It has a diverse vegetation with particularly large stands of nutrient-poor marsh containing normally calcifuge plants. The woodland is also unusual and goes with a historic low intensity of grazing. There is no sign of drainage in the basin and little sign of eutrophication. Parts of the site are grazed producing an instructive comparison in the vegetation. There is little if any grazing damage. Eutrophication from farm effluent or through the ground water is the main potential risk. There is a farm close to the South end.

Conservation Interests	Site Name and code	Qualifying Feature	Threats to Site Integrity
IE0001818	Lough Forbes Complex	Active raised bogs Natural euthrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation Degraded raised bogs still capable of natural regeneration Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) Depressions on peat substrates of the *Rhynchosporion*	Bogs are considered vulnerable to water loss from peat cutting and drainage. The woodlands are susceptible to invasion by *Rhododendron ponticum*.
IE0002341	Ardagullion Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the *Rhynchosporion*	Current landuses on the site include forestry, peat-cutting and agriculture. The forestry is found on a small section of high bog and adjoining cutover in the southwest of the site. Areas of cutover in the south and west of the site that were previously forested have only recently been clear-felled. Active peat-cutting is taking place in the north-west, east and south-east of the site. Two fields in the north of the site have been reclaimed for agriculture. Damaging activities associated with these landuses include drainage throughout the site and burning of the high bog. There is also evidence of old burning in the northern part of the high bog. All these activities have resulted in the loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability. The site continues to be subject to threats to its hydrological integrity. The main threat is drying out of the surface due to forestry, however much of the forestry in the cutover margins of the site has been felled recently. Although active peat cutting occurs, the intensity is relatively low in comparison to other raised bog sites in Ireland. A large proportion of the site is in semistate ownership.
IE0002346	Brown Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the *Rhynchosporion*	Although this site is vulnerable to peat-cutting and burning, the low level of these practices in the recent past suggests that they are unlikely to pose significant threats to the overall bog system. Large scale commercial cutting of peat has been a threat in the recent past. Afforestation is a general threat.

Conservation Interests	Site Name and code	Qualifying Feature	Threats to Site Integrity
IE0002348	Clooneen Bog	Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the *Rhynchosporion* Bog woodland	This site has suffered from extensive drying out. Most of the dessication is as a result of peat-cutting along the margins and the subsequent reclamation of the cutover to grassland. Further cutting along the margins would seriously threaten the long-term conservation of this site. Burning has occurred in the past and further burning events would be undesirable.

Table 2.2 SPAs in County Longford

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
4045	Glen Lough SPA	Whooper Swan (*Cygnus cygnus*)	Glen Lough is surrounded by intensive agricultural land and undoubtedly receives fertiliser and nutrient run-off. The effect of this on the vegetation and indirectly on the birds is not known. Planting of forestry around part of the margin of the site has occurred. Any further planting would be of concern as this could destroy feeding areas used by the swans, geese and herbivorous wildfowl.
4061	Lough Kinale and Derragh Lough SPA	Pochard (Aythya ferina)- Tufted Duck (Aythya fuligula) Wetlands & Waterbirds	The variable water quality over the years, with periods of highly eutrophic conditions, undoubtedly has had adverse impacts on the wintering waterfowl, and especially the diving duck. This would appear to be borne out by very variable numbers of birds recorded over the years. The lake is still vulnerable to pollution and it is considered that there is urgent need to reduce the phosphorus inputs to the system. Afforestation has taken place close to parts of the shoreline and further planting would be undesirable. Angling and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern.
4064	Lough Ree SPA	Whooper Swan (*Cygnus cygnus*), Wigeon (*Anas penelope*) Teal (Anas crecca), Mallard (Anas platyrhynchos), Shoveler (Anas clypeata) Tufted Duck (*Aythya fuligula*), Common Scoter (*Melanitta nigra*), Goldeneye (*Bucephala clangula*), Little Grebe (*Tachybaptus ruficollis*) Coot (*Fulica atra*), Golden Plover (*Pluvialis apricaria*), Lapwing (*Vanellus vanellus*), Common Tern (*Sterna hirundo*)	WFD status for Lough Ree is *Moderate*. It is vulnerable to artificial enrichment of the waters by agricultural and domestic waste. The recent reduction in phytoplanktonic growth has coincided with the invasion of the Shannon system by the Zebra Mussel; however, in the long-term this invasive bivalve may threaten the ecology of the lake. Recreational activities, especially boating, presently cause some disturbance to the birds and an increase in such activities would be of concern. Developments above the lakeshore could affect feeding grounds of some of the wintering waterfowl and nesting habitat for duck species.
4101	Ballykenny-Fisherstown Bog SPA	Greenland White-fronted Goose (*Anser albifrons flavirostris*)	WFD status for Lough Forbes is Moderate. The raised bogs are vulnerable to water loss from peat cutting and drainage, though on-going restoration work involves blocking of drains. No known threats to the wintering birds though the increased use of the Shannon system by leisure craft could cause disturbance.

Table 2.3 cSACs within 15km of the of County Longford Border

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
IE0000007	Lough Oughter and Associated Loughs	Natural euthrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation,- Bog woodland *Lutra lutra*	In Co. Cavan, approx. 7 km north of the Co. Longford border. Hydrologically connected to Co Longford via the River Erne which flows from Lough Gowna to Lough Oughter. While naturally eutrophic, the water quality is artificially enriched by waste discharges and fertiliser runoff. The main threats to the quality of the site are water polluting activities such as run-off from fertiliser and slurry application and sewage discharge which have raised the nutrient status of some lakes to hypertrophic. Housing and boating developments are on the increase, adjacent to and within the site respectively. There is also significant fishing and shooting pressure on and around the lakes. Increased afforestation has resulted in some loss of wetland habitat and also loss of feeding ground for wintering birds such as Greenland White-fronted Geese
IE0000216	River Shannon Callows	Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*), Molinia meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*)- Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion*, Alnion *incanae*, *Salicion albae*) Limestone pavements *Lutra lutra*	In Co. Roscommon, approx 8 km south of the Co Longford border. Hydrologically linked via the River Shannon. The main threats to the Annex I habitats (and the other humid grasslands) on the site come from intensification of grassland management which would destroy their semi-natural nature and reduce botanical diversity. The flooding regime generally mitigates against intensification but herbicides and high fertiliser applications have been effectively used in a few places and this trend may increase. Most of the meadows are old meadows and any trend towards change to permanent pasture would be detrimental. This has not happened to date but may in the future, especially if deterioration in the flooding regime makes it more difficult to harvest. Large scale drainage of this section of the river is considered unlikely at present. The limestone pavement is threatened by removal of rock and scrub clearance. Drainage schemes, agricultural pollution and wildfowling threaten the bird-life in the area. Power lines across the site are also hazards for flying birds.
IE0000610	Lough Croan Turlough	Turlough	In Co. Roscommon, approx. 14km from Co. Longford Hydrologically connected to the River Shannon via the Cross River, Upstream of Co. Longford. The southern side of the wetland includes and adjoins intensive farmland and there is a likelihood of eutrophication from this source. Further drainage would damage the site: it could be done through the Cross River.

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
IE0000611	Lough Funshinagh	Turlough	In Co. Roscommon, approx. 8km west of Co. Longford. Within the same hydrometric area, but no direct hydrological link. Adverse effects through eutrophication from agricultural intensification in the catchment and also from housing on shore. Actual drainage or a lowering of regional watertables would also be damaging as would an increase in human disturbance.
IE0000679	Garriskil Bog	Active raised bogs- Degraded raised bogs still capable of natural regeneration, - Depressions on peat substrates of the *Rhynchosporion*	In Co. Westmeath, approx. 4km from Co. Longford. Hydrologically connected via the River Inny. Raised bogs are vulnerable to water loss caused by peat cutting, drainage and fire. There is no active peat cutting at this site at present. In general, human landuse within the site is low, with much of the previous cutaway areas reverting to semi-natural wilderness. Burning in the past has caused damage, with some bare peat exposure evident in places. This is always a very real threat to a bogland habitat. Past drainage of the bog has unfavourably impacted on the site, although many of these drains have now been infilled and blocked. However, a more serious threat is the arterial drainage of the R. Inny. This could result in major and irreversible damage to the hydrological integrity of this raised bog habitat.
IE0000688	Lough Owel	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp., Transition mires and quaking bogs, Alkaline fens, *Austropotamobius pallipes*	In Co. Westmeath approximately 10km from Co. Longford. Located upstream of hydrological connections to Co. Longford. Potential threats to the conservation interest of the lake include the increasing level of water supply to Mullingar, overfishing, eutrophication caused by local farming practices and pressure from amenity uses such as boating and fishing.
IE0000692	Scragh Bog	Alkaline fens Transition mires and quaking bogs *Euphydryas aurinia* *Drepanocladus vernicosus*	In Co Westmeath 12 km from Co Longford Located upstream of hydrological connections to Co. Longford. In the Brosna WMU, not linked to Co Longford. Site well protected as a National Nature Reserve but nonetheless vulnerable to deterioration in water quality if intensification in agricultural practices occurs. The outflow stream is included in the site, since interference with this outflow could damage the site hydrology
IE0001625	Castlesampson Esker	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(*important orchid sites) Turloughs	In Co Roscommon15km from Co Longford. In the Hind/Lough Ree WMU, linked to Co Longford. The site is vulnerable to grassland improvement, i.e. fertilization and reseeding, to both overgrazing and undergrazing (the latter would encourage scrub encroachment onto the esker grassland) and to gravel extraction.

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
IE0001626	Annaghmore Lough (Roscommon)	Alkaline fens *Vertigo geyeri*	In Co Roscommon15km from Co Longford. In a separate WMU to Longford (Shannon) The quality of this site is threatened by several activities. Drains have been inserted in the past and any further attempts at drainage could be damaging to the hydrology of the lake and wetland vegetation. Severe burning of part of the *Schoenus* fen has occurred and repeated burning events would be damaging. Part of the marginal wetland vegetation along the northern shore of the lake, which is very close to a road, has been infilled for parking areas - further infilling would be very damaging. Grazing pressure. These various activities are all relevant for the conservation of the *Vertigo geyeri* population.
IE0001810	White Lough, Ben Loughs and Lough Doo	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. *Austropotamobius pallipes*	On the Westmeath/Meath border, 10 km from Co Longford. In a separate WMU (Deel) Although small, this is a good example of an oligotrophic system which is not showing any obvious signs of eutrophication. Interest of site is increased by presence of *Austropotamobius pallipes* and *Lutra lutra.* Attempts at agricultural improvement, which have already occurred on a small scale, is the main threat to this site. Recurrence of crayfish plague could have serious impact on the population of that species.
IE0002120	Lough Bane and Lough Glass	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. *Austropotamobius pallipes*	On the Westmeath/Meath border, 12 km from Co Longford. In a separate WMU (Deel). The site is vulnerable to eutrophication, mainly by run-off from surrounding agricultural fields. Some afforestation is occurring near the site - should this increase, water quality could be affected. Increased use of lake for boating could cause physical damage to *Chara* communities.
IE0002121	Lough Lene	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. *Austropotamobius pallipes*	In Co. Westmeath, 10 km from Co Longford. In a separate WMU (Deel) The main threat to this site is eutrophication caused by agricultural run-off from surrounding areas. Any further reclamation of the semi-natural habitats around the lakes shore would be detrimental to the overall ecology of the lake system. Increased usage of the lake for boating and angling could cause physical damage to the *Chara* communities. The crayfish population is vulnerable to water pollution and to further introductions of the crayfish fungus.

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
IE0002313	Ballymore Fen	Transition mires and quaking bogs	In Co Westmeath, 5 km from Co. Longford. In a shared WMU (Inny). There are no known threats to this site at present. Peat cutting by hand occurred in the distant past and is unlikely to happen again. Some nutrient runoff from surrounding agricultural land is likely to be entering the site but this is not considered to be significant as the intensity of farming in the surrounding area is low.
IE0002336	Carn Park Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration	In Co Westmeath, 15 km from Co. Longford. In a shared WMU (Inny). Current landuse on the site consists of mechanised peat-cutting, forestry and agricultural reclamation around the edge of the high bog. Peat-cutting is carried out along the track and road, which form the northern and north-western site boundaries. Afforestation occurs on the bog margins and extends onto intact or high bog. Some agricultural grassland has been reclaimed from cutover bog to the south and northwest of the site. The site continues to be subject to the damaging effects of drainage caused by afforestation and, to a lesser extent, peat-cutting. It is considered that the long-term future of the high bog is dependent on the removal of the conifer trees and the blocking of the main drains. Burning of the bog surface has occurred in the past and any further burning events would be damaging to the high bog.
IE0002337	Crosswood Bog	Active raised bogs Degraded raised bogs still capable of natural regeneration	In Co Westmeath, 15 km from Co. Longford. In a shared WMU (Inny) Current landuse on the site consists of peat-cutting around the edge of the high bog; it is more intensively cut on the western and southern margins. While the northern margin has drains that extend into the intact bog it is relatively protected from development due to the proximity to the railway. Forestry is found to the south of the site on areas of cutover bog. Some fields on old cutover are used for pasture and are presently undergoing further reclamation. Damaging activities associated with these landuses include drainage throughout the site (both old and recent) and extensive burning of the high bog. These are 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.

Site Code	Site Name	Qualifying Feature	Threats to Site Integrity
IE0002339	Ballynamona Bog and Corkip Lough	Turloughs, Degraded raised bogs still capable of natural regeneration- Bog woodland- Active raised bogs- Depressions on peat substrates of the *Rhynchosporion*	In Co. Roscommon, approx. 9km from Co. Longford. In a shared WMU (Hind/ Lough Ree), no direct hydrological links The main threats to this site are peat-cutting and associated activities such as drainage and burning. Burning appears to be a frequent occurrence on the peatland area of this site and this damages the structure of the bog surface. The bog woodland, however, may be somewhat protected from burning by the surrounding wet flush vegetation. Agricultural reclamation and afforestation are potential threats to cutover areas of bog within the site. The turlough area is especially vulnerable to agricultural reclamation, drainage and water pollution.
IE0002340	Moneybeg and Clareisland Bogs	Degraded raised bogs still capable of natural regeneration- Active raised bogs- Depressions on peat substrates of the *Rhynchosporion*	In Co. Westmeath within 2 km of Co. Longford. In a shared WMU (Inny) Landuse at Moneybeg Bog includes active peat-cutting to the east and west and forestry along the western margin. Current landuse at Clareisland Bog includes peat cutting to the west and north-west of the high bog and forestry along the southern margin. Damaging activities associated with these landuses include drainage and burning. Drainage has occurred on these high bogs in the past and at Moneybeg Bog there is evidence of recent and frequent burning of the high bog. These activities have resulted in habitat loss and damage to the hydrological status, and pose a continuing threat to the viability of these high bogs.
IE0002349	Corbo Bog	Degraded raised bogs still capable of natural regeneration Active raised bogs Depressions on peat substrates of the *Rhynchosporion*	In Co. Roscommon, within 5km of Co. Longford. In shared WMU (Hind/Lough Ree) Peat-cutting and, to a lesser extent, burning are the main threats to Corbo Bog at present. Active cutting is common all along the margins of the high bog and cessation of cutting is essential for the long-term survival of the bog. Drains in the east of the site have also had a damaging effect. These are all activities that have resulted in the loss of habitat, damage the hydrological status of the site, and pose a continuing threat to its viability.

Table 2.4 SPAs within 15 km of Border of County Longford

Site Code	Site Name	Qualifying Feature	Site location and threats to site integrity
4043	Lough Derravaragh	Whooper Swan (*Cygnus cygnus*)- Pochard (*Aythya ferina*)- Tufted Duck (*Aythya fuligula*) Coot (*Fulica atra*)- Wetlands & Waterbirds	In Co. Westmeath, 7 km from county boundary. In a shared WMU (Inny). Direct links to Co. Longford via tributaries of the Inny. Enrichment of the lake, mainly by agricultural run-off, is a threat and could affect the bird populations and especially the diving ducks. An increase in recreational and wildfowling activities could cause disturbance to the birds though this is not considered to be a major threat.
4046	Lough Iron	Whooper Swan (*Cygnus cygnus*), Wigeon (*Anas penelope*) Teal (*Anas crecca*), Shoveler (*Anas clypeata*), Coot (*Fulica atra*) Golden Plover (*Pluvialis apricaria*), Greenland White-fronted Goose (*Anser albifrons flavirostris*) Wetlands & Waterbirds	In Co. Westmeath, 6 km from county boundary. In a shared WMU (Inny) As the water body is relatively small, the lake is particularly vulnerable to water pollution from, for example, agricultural run-off. Further afforestation in the vicinity of the lake shore is a threat and could affect grassland habitats used by the birds
4047	Lough Owel	Shoveler (*Anas clypeata*) Coot (*Fulica atra*) Wetlands & Waterbirds	In Co. Westmeath, 7 km from county boundary. In a shared WMU (Inny) Lough Owel is vulnerable to pollution from agricultural and domestic sources though water quality has been satisfactory in recent years. Deterioration in water quality could affect bird populations. Some of the areas above the shoreline, which are not within the site, have been afforested - further afforestation could be damaging to the system. An increase in recreational and wildfowling activities could cause disturbance to the birds though this is not considered to be a major threat.
4065	Lough Sheelin	Great Crested Grebe (*Podiceps cristatus*) Pochard (*Aythya ferina*) Tufted Duck (*Aythya fuligula*) Goldeneye (*Bucephala clangula*) Wetlands & Waterbirds	On the Cavan/Westmeath/Meath border, 2km from Co. Longford. In a shared WMU (Inny). Co. Longford is downstream from the catchment. The variable water quality over the years, with periods of highly eutrophic conditions, undoubtedly has had some adverse impacts on the wintering waterfowl, and especially the diving duck. This would appear to be borne out by very variable numbers over the years. The lake is still considered to be vulnerable to pollution and there is a need to reduce the phosphorus inputs to the feeder streams entering the lake. Recreational and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern.
4096	Middle Shannon Callows	Whooper Swan (*Cygnus cygnus*) Wigeon (*Anas penelope*) Corncrake (*Crex crex*)	This SPA shares a border with Cos. Roscommon, Westmeath, Offaly, Galway and Tipperary and is downstream of Co. Longford. The principal threat to the ornithological interests in this site is agricultural

Site Code	Site Name	Qualifying Feature	Site location and threats to site integrity
		Golden Plover (*Pluvialis apricaria*) Lapwing (*Vanellus vanellus*) Black-tailed Godwit (*Limosa limosa*) Black-headed Gull (*Chroicocephalus ridibundus*) Wetlands & Waterbirds	improvement including drainage attempts to reduce winter flooding. Agricultural intensification may also be affecting numbers of breeding waders. Wildfowling causes some disturbance.
4102	Garriskil Bog	Greenland White-fronted Goose (*Anser albifrons flavirostris*)	In Co. Westmeath, 6 km from county boundary. In a shared WMU (Inny). There is little active peat cutting taking place at this site and recent information suggests that fire damage has been slight recently. The apparent abandonment of the site by wintering *Anser albifrons flavirostris* reflects a general move away from raised bogs and is not considered to be due to conditions at the site.
4139	Lough Croan Turlough	Shoveler (*Anas clypeata*) Golden Plover (*Pluvialis apricaria*) Greenland White-fronted Goose (*Anser albifrons flavirostris*) Wetlands & Waterbirds	In Co. Roscommon, 15km from Co. Longford. In a separate WMU (Suck). The main threat to the birds at this site would be degradation of the wetland habitats as a result of drainage. Disturbance is not considered a problem as the site is a Wildfowl Sanctuary.

Table 2.5 Threats and Sensitivities of Qualifying Features

Qualifying Feature	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Active raised bogs	Deterioration of the hydrological conditions caused by peat cutting, drainage, forestry and burning. Arterial drainage, water abstraction, Inappropriate management e.g. overgrazing, forestry Peat extraction Agricultural reclamation	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Alkaline fens	Peat mining activities, land drainage; infilling; fertiliser pollution and eutrophication	Groundwater dependent. Highly sensitive to hydrological changes. Changes in nutrient or base status
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)	Inappropriate grazing levels; invasive species; and clearance for agriculture or felling for timber	Surface and groundwater dependent. Highly sensitive to hydrological changes. Changes in management.
Blanket bog (active only)	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Bog woodland	Drainage, peat cutting, burning and development;	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Calcareous rocky slopes with chasmophytic vegetation	Overgrazing; extractive industries; recreational activities and improved access	Erosion, ovegrazing and recreation.
Degraded raised bogs still capable of natural regeneration	Changes in agricultural practices; afforestation and general forest management; burning; peat extraction; drainage; and the introduction of invasive species.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Depressions on peat substrates of the *Rhynchosporion*	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface and groundwater dependent. Low sensitivity to hydrological changes. Erosion, land-use changes
Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp	Nutrient enrichment arising from intensification of agriculture and urban developments.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Highly sensitive to pollution

Qualifying Feature	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Limestone pavements	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.	Physical removal. Scrub encroachment
Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*)	Agricultural intensification; drainage; abandonment of pastoral systems and the associated encroachment of rank vegetation and scrub.	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status
Molinia meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*)	Agricultural intensification; drainage; abandonment of pastoral systems	Surface and groundwater dependent. Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status
Natural euthrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation	Nutrient enrichment; overgrazing; afforestation and general forest management; introduction of invasive species; and increased pressures from human activities.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Old sessile oak woods with *Ilex* and *Blechnum* in British Isles	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.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(important orchid sites)	The main threats to this habitat include the abandonment of traditional agricultural practices and reclamation.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change
Siliceous rocky slopes with *chasmophytic* vegetation	Overgrazing; extractive industries; recreational activities and improved access	Erosion, ovegrazing and recreation.
Submerged or partly submerged sea caves	Water pollution	Pollution
Transition mires and quaking bogs	Drainage, infilling, reclamation and pollution.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Turloughs	Nutrient enrichment and inappropriate grazing; drainage, peat cutting; marl extraction and quarrying.	Surface and Groundwater dependent. Highly sensitive to hydrological changes. Changes in nutrient or base status.

Qualifying Feature	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Austropotamobius pallipes	Introduction of diseases transmitted by introduced American crayfish.	Surface water dependent Highly sensitive to hydrological change. Very highly sensitive to pollution
Drepanocladus vernicosus	Fertilization; abandonment of pastoral systems; undergrazing; afforestation; water pollution; and drainage.	Highly sensitive to hydrological changes. Highly sensitive to pollution.
Euphydryas aurinia	Abandonment of traditional pastoral systems; infrastructure developments and increased urbanisation	Changes in management. Habitats are sensitive to hydrological changes. Changes in nutrient base status.
Lutra lutra	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 of inland water course.	Surface and marine water dependent. Moderately sensitive to hydrological change. Sensitivity to pollution
Salmo salar	Numerous threats impact upon this species. Some of these include: cultivation, pesticides; fertilization; pollution; water pollution; biocenotic evolution; accumulation of organic material; eutrophication; over-fishing; forest related pressures; parasites.	Surface water dependent. Highly sensitive to hydrological change
Vertigo angustior	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Groundwater dependent. Highly sensitive to hydrological changes
Vertigo geyeri	Loss of calcareous flushes and fen, drainage of wetlands.	Groundwater dependent. Highly sensitive to hydrological changes.

2.4 Assessment Criteria

2.4.1 Is the Plan Necessary to the Management of Natura 2000 Sites?

Under the Habitats Directive, Plans that are directly connected with or necessary to the management of a Natura 2000 site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site (s). The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site (s). The Plan includes measures that will benefit the protection of Natura 2000 sites however its primary purpose is not the nature conservation management of the sites, but to provide for development. Therefore, the Plan as varied is not considered by the Habitats Directive to be directly connected with or necessary to the management of Natura 2000 sites.

2.4.2 Elements of the Plan with Potential to Give Rise to Significant Effects

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

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

In general, any development that may result from implementation of the CDP, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to significant effects depending on where development is sited, the scale of development and types and quantities of emissions. The individual elements of the Plan have been identified that may result in impacts on Natura 2000 sites. The elements are outlined below.

- Settlement strategies, including population growth around key population centres such as Longford Town, Granard, Edgeworthstown, Ballymahon, Lanesboro and the village network.
- Rural housing policy and one off rural housing
- Industrial and enterprise development
- Retail Development
- Facilitation of Agricultural Intensification and Agricultural Diversification
- Promotion of forestry and the bio-energy sector
- Expansion of wind energy as part of the Renewable Energy Strategy
- Promotion of Hydro energy from rivers as part of the Renewable Energy Strategy
- Expansion of mineral extraction and processing
- Increase in recreational demand and facilities associated with the increased population
- Development of tourism at key areas
- Provision of walking and cycling routes
- Upgrade and improvement works on national and non-national roads
- Water supply services investment programme
- Wastewater services investment programme, including the roll-out and installation of wastewater treatment plants

- Flood Risk and Management Strategy
- Upgrading of electricity transmission and distribution network.
- Development of Telecoms infrastructure
- Development of Social infrastructure

The settlement strategy for the Plan includes the economic development of a number of settlements. The potential for impacts arising from these settlement plans is outlined in Table 2.6.

Table 2.6 Settlements and Potential Impacts

Settlement	Distance to nearest Natura 2000 site	Potential impact
Abbeyshrule	Glen Lough SPA - 7.2 km North-east	Unlikely due to distance from settlement
Aughnacliffe	Ardagullion Bog cSAC - 8.9 km South-east	Unlikely due to distance from settlement
Ballinalee	Ardagullion Bog cSAC - 8.9 km South-east	Unlikely due to distance from settlement
Ballinamuck	Clooneen Bog cSAC - 12.8 km South-west	Unlikely due to distance from settlement
Ballymahon	Lough Ree SPA - 5.1 km West	Unlikely due to distance from settlement
Carrickglass	Brown Bog cSAC - 6.4 km West	Unlikely due to distance from settlement
Clondra (Cloondara)	Adjacent to Lough Forbes Complex cSAC and Ballykenny-Fisherstown Bog SPA	Increased population may lead to increased recreational disturbance. Drainage or lowering of watertable could impact on sensitive wetland habitats. Development may lead to increased water pollution from surface water runoff and wastewater discharge.
Drumlish	Lough Forbes Complex cSAC and Ballykenny-Fisherstown SPA - 6 km South-west	Unlikely due to distance from settlement
Edgeworthstown	Glen Lough SPA - 4.3 km South	Unlikely due to distance from settlement
Granard	Lough Kinale and Derragh Lough SPA - 4.1 km East	Unlikely due to distance from settlement
Keenagh	Lough Ree cSAC & SPA - 5.5 km South-west	Unlikely due to distance from settlement
Lanesborough	Adjacent to Lough Ree cSAC & SPA	Increased population may lead to increased recreational disturbance. Development may lead to increased water pollution from surface water runoff and wastewater discharge.
Legan	Glen Lough SPA - 4.1 km North-east	Unlikely due to distance from settlement
Longford Environs	Brown Bog cSAC - 2 km South-west	Unlikely due to distance from settlement
Newtown Forbes	Adjacent to Lough Forbes Complex cSAC and Ballykenny-Fisherstown Bog SPA	Increased population may lead to increased recreational disturbance. Drainage or lowering of watrertable could impact on sensitive wetland habitats. Development may lead to increased water pollution from surface water runoff and wastewater discharge.

2.4.3 Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity 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 Variation can be categorised under a number of headings

- Loss/Reduction of habitat area – e.g. as a result of development, transport infrastructure etc
- Disturbance to key species – e.g. as a result of increased public access to protected sites and increased recreational pressure such as development of footpaths and cycleways particularly along the coast.
- Habitat or species fragmentation – e.g. through land intensification and urbanisation
- Reduction in species density
- Changes in key indicators of conservation value such as decrease in water quality and quantity – e.g. through inadequate wastewater treatment, runoff of pollutants during construction and operational phases of development.

A precautionary approach has been taken to screening sites potentially affected by the Plan. The Plan is a high level plan that provides a framework for the sustainable development within Co. Longford. There is a potential that any designated site within the functional area of the plan or any water dependent site that is downstream of the county may be adversely affected, and therefore screened in for Stage 2 Appropriate Assessment.

In determining the potential for significant effects, a number of factors have been taken into account. Firstly, the sensitivity of each Natura 2000 site as outlined in Tables 2.1 – 2.4 above. Secondly the individual elements of the Plan and the potential effect they may cause on each site were considered. This screening assessment assumed the absence of any controls, conditions or mitigation measures.

Table 2.7 Screening of Natura 2000 Sites within County Longford

	Is there potential for:					
Site Name	**Reduction of Habitat Area**	**Disturbance to Key Species**	**Habitat or Species Fragmentation**	**Reduction in Species Density**	**Changes in Key Indicators of Conservation Value (Water Quality Etc.)**	**AA Required**
Ardagullion Bog cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Ballykenny-Fisherstown Bog SPA	Yes	Yes	Yes	Yes	Yes	Yes
Brown Bog cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Clooneen Bog cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Fortwilliam Turlough cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Glen Lough SPA	Yes	Yes	Yes	Yes	Yes	Yes
Lough Forbes Complex cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Lough Kinale and Derragh Lough SPA	Yes	Yes	Yes	Yes	Yes	Yes
Lough Ree cSAC	Yes	Yes	Yes	Yes	Yes	Yes
Lough Ree SPA	Yes	Yes	Yes	Yes	Yes	Yes

Table 2.8 Screening of Natura 2000 sites within 15km of County Longford border

	Is there potential for:					
Site Name	**Reduction of Habitat Area**	**Disturbance to Key Species**	**Habitat or Species Fragmentation**	**Reduction in Species Density**	**Changes in Key Indicators of Conservation Value (Water Quality Etc.)**	**AA Required**
Annaghmore Lough (Roscommon) cSAC	No	No	No	No	No	No
Ballymore Fen cSAC	No	No	No	No	Yes – hydrological links mean that this site may be affected by drainage or eutrophication impacts from Co. Longford.	Yes
Ballynamona Bog and Corkip Lough cSAC	No	No	No	No	No	No
Carn Park Bog cSAC	No	No	No	No	No	No
Castlesampson Esker cSAC	No	No	No	No	No	No
Corbo Bog cSAC	No	No	No	No	No	No
Crosswood Bog cSAC	No	No	No	No	No	No
Garriskil Bog cSAC	No	No	No	No	Yes – Arterial drainage in the River Inny may impact on this site.	Yes
Garriskil Bog SPA	No	No	No	No	No	No
Lough Bane and Lough Glass cSAC	No	No	No	No	No	No
Lough Croan Turlough cSAC	No	No	No	No	No	No
Lough Croan Turlough SPA	No	No	No	No	No	No
Lough Derravaragh SPA	No	No	No	No	Yes – hydrological links mean that this site may be affected by eutrophication impacts from Co. Longford.	Yes
Lough Funshinagh cSAC	No	No	No	No	No	No
Lough Iron SPA	No	No	No	No	Yes – hydrological links mean that this site may be affected by drainage and eutrophication impacts from Co. Longford.	Yes

	Is there potential for:					
Site Name	**Reduction of Habitat Area**	**Disturbance to Key Species**	**Habitat or Species Fragmentation**	**Reduction in Species Density**	**Changes in Key Indicators of Conservation Value (Water Quality Etc.)**	**AA Required**
Lough Lene cSAC	No	No	No	No	No	No
Lough Oughter and Associated Loughs cSAC	No	No	No	No	Yes – hydrological links mean that this site may be affected by drainage or eutrophication impact from Co. Longford	Yes
Lough Owel cSAC	No	No	No	No	No	No
Lough Owel SPA	No	No	No	No	No	No
Lough Sheelin SPA	No	No	No	No	No	No
Middle Shannon Callows SPA	No	No	No	No	Yes – hydrological links mean that this site may be affected by drainage and eutrophication impacts from Co. Longford.	Yes
Moneybeg and Clareisland Bogs cSAC	No	No	No	No	Yes – hydrological links mean that this site may be affected by drainage impacts from Co. Longford.	Yes
River Shannon Callows cSAC	No	No	No	No	Yes – hydrological links mean that this site may be affected by water quality impacts from Co. Longford	Yes
Scragh Bog cSAC	No	No	No	No	No	No
White Lough, Ben Loughs and Lough Doo cSAC	No	No	No	No	No	No

2.5 Other Plans and Programmes

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combinations with the plan or project, have the potential to adversely impact upon Natura 2000 sites. Table 3.1 lists the plans or projects that may interact with the Variation to cause in-combination effects to Natura 2000 sites. The plans or projects are listed according to a spatial hierarchy of International, National, Regional/Local Projects and Plans.

Table 2.9 Plans & Projects Likely to Cause In-Combination Effects

International		
Directive	**Purpose**	**In-combination Effects**
EU Water Framework Directive (2000/60/EC)	Objectives seek to maintain and enhance the quality of all surface waters in the EU.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Freshwater Fish Directive (78/659/EEC)	Objectives seek to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations. For those waters it sets physical and chemical water quality objectives for salmonid waters and cyprinid waters.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Groundwater Directive (2006/118/EC)	This directive establishes a regime, which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
EU Floods Directive (2007/60/EC)	The Floods Directive applies to river basins and coastal areas at risk of flooding. With trends such as climate change and increased domestic and economic development in flood risk zones, this poses a threat of flooding in coastal and river basin areas.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure such as flood walls or flood defences. Avoidance on, or near protected areas should be implemented or where this is not possible, favouring infrastructure that carries a lower risk of damage to protected areas should be emphasised in the plan.
Nitrates Directive (91/676/EEC)	This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further pollution.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Urban Wastewater Treatment Directive (91/271/EEC)	The primary objective is to protect the environment from the adverse effects of discharges of urban wastewater, by the provision of urban wastewater collecting systems (sewerage) and treatment plants for urban centres. The Directive also provides general rules for the sustainable disposal of sludge arising from wastewater treatment.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.

International		
Directive	**Purpose**	**In-combination Effects**
Sewage Sludge Directive (86/278/EEC)	Objective is to encourage the appropriate use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
The Integrated Pollution Prevention Control Directive (96/61/EC)	Objective is to achieve a high level of protection of the environment through measures to prevent or, where that is not practicable, to reduce emissions to air, water and land from industrial sources.	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
National		
Plan	**Purpose**	**In-combination Effects**
National Spatial Strategy 2002-2020	Objectives of the NSS are to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning.	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure. Provision of infrastructure may result in: • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Regional		
Midlands Regional Planning Guidelines 2010-2022	Policy document which aims to direct the future growth of the Midlands Area over the medium to long term and works to implement the strategic planning framework set out in the National Spatial Strategy (NSS)	Potential in-combination impacts may arise where there is a requirement to provide for new infrastructure. Provision of infrastructure may result in: • Habitat loss • Alteration of hydrology • Deterioration in water quality • Disturbance during construction / operation
Local		
Leitrim County Development Plan 2009-2015 Cavan County Development Plan 2014 - 2020 Westmeath County Development Plan 2014 - 2020 Roscommon County Development Plan 2014 - 2020	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant Local Authorities.	Longford shares its boundary with a number of midland counties. Furthermore a number of Natura 2000 sites are located in more than one county. Similar development plans are in existence throughout the region, accordingly these plans acting alone or in combination can have a cumulative impact on Natura 2000 sites located within County Longford.

2.6 Conclusion of AA Screening

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

(i) is not directly connected with or necessary to the management of a Natura 2000 site and

(ii) may have significant impacts on the Natura 2000 network.

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

Section 3 Stage 2 Appropriate Assessment

3.1 Introduction

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

The Stage 1 Screening has created a list of sites with potential to be affected by the Plan (see Table 2.7 and Table 2.8). Therefore, a Stage 2 Appropriate Assessment is required. The potential adverse effects considered at this stage will either be effects occurring as a result of the implementation of the Plan alone or in-combination with other plans, programmes and/or projects.

In total, 20 sites have been identified that may be adversely affected through the implementation of the Plan. As can be seen in Table 3.1, most of the sites potentially affected by the Plan are have been designated for habitats and species that are dependent on groundwater and surface water quality and availability. Sites highlighted in grey are located within Co. Longford and may be subject to both direct and indirect impacts.

Table 3.1 Natura 2000 sites subject to Stage 2 Appropriate Assessment

Rivers and Lakes	Peatlands (Bogs & Fens)	Turloughs	SPAs
Lough Ree cSAC	Ardagullion Bog cSAC	Fortwilliam Turlough cSAC	Glen Lough SPA
Lough Forbes Complex cSAC	Brown Bog cSAC		Lough Kinale and Derragh Lough SPA
Lough Oughter and Associated Loughs cSAC	Clooneen Bog cSAC		Lough Ree SPA
River Shannon Callows cSAC	Garriskil Bog cSAC		Ballykenny-Fisherstown Bog SPA
	Moneybeg and Clareisland Bogs cSAC		Lough Derravaragh SPA
	Ballymore Fen cSAC		Lough Iron SPA
			Middle Shannon Callows SPA

3.2 Potential Significant Effects

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

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

- Changes in Key Indicators of Conservation Value such as decrease in water quality / quantity (e.g. through inadequate wastewater treatment, run-off of pollutants during construction and operation of developments, agricultural runoff)

The Plan is a high level plan that provides a framework for the sustainable development within County Longford. Apart from the details and zoning maps for the core settlement strategy, the plan does not prescribe the particular locations of any developments of infrastructure. Overall, the Plan underpins the development of housing, communities and urban centres with supporting transport, water, waste, energy and communication infrastructure within the County.

3.2.1 Reduction of Habitat Area

Direct habitat loss is caused where there is complete removal of a habitat type. Habitat loss can also occur through the reduction of habitat quality and a loss of important habitat functions. It can arise from the introduction of invasive species, toxic contamination or physical alteration.

There is a potential that any designated site within the functional area of the plan may be adversely affected in this manner through the implementation of the Plan. Development either in isolation or in combination with other similar developments can potentially lead to significant adverse impacts on the environment with long term consequences. Construction of housing and commercial/industrial properties could lead to loss of habitats if inappropriately located within the boundaries of a designated site. Installation of linear infrastructure e.g. roads and other transportation links, water and wastewater pipelines, electricity supply lines, can have a negative impact over a wide distance where such infrastructure crosses designated sites. Impacts can include habitat or species fragmentation where, for example, electricity supply lines or wind turbines may interrupt the flight paths of birds or newly installed bridges disturb the migration of salmon. Indirectly, habitat loss may also occur through draining of development lands adjacent to or hydrogeologically linked to designated sites that support water based habitats such as bogs, fens and turloughs.

A review of the zoning maps for those settlements to be included in the County Development Plan indicates that there are no Natura 2000 sites or parts of designated sites subject to zoning that would lead to direct habitat loss. However, the Plan does support the development under certain circumstances of otherwise unzoned, agricultural land for residential purposes and this could lead to habitat loss through inappropriately sited developments. The Natura 2000 sites potentially affected include Lough Ree cSAC, Fortwilliam Turlough cSAC, Lough Forbes Complex cSAC, Ardagullion Bog, Brown Bog, Clooneen Bog, Glen Lough SPA, Lough Kinale and Derragh Lough SPA, Lough Ree SPA, and Ballykenny-Fisherstown Bog SPA.

3.2.2 Fragmentation

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

Installation of linear infrastructure e.g. roads and other transportation links, water and wastewater pipelines, electricity supply lines, can have a negative impact over a wide distance where such infrastructure crosses designated sites. Impacts can include habitat or species fragmentation where, for example, electricity supply lines interrupt the flight paths of birds or newly installed bridges disturb the migration of salmon.

The Natura 2000 sites potentially affected include Lough Ree cSAC, Fortwilliam Turlough cSAC, Lough Forbes Complex cSAC, Ardagullion Bog cSAC, Brown Bog cSAC, Clooneen Bog cSAC, Glen Lough SPA, Lough Kinale and Derragh Lough SPA, Lough Ree SPA, and Ballykenny-Fisherstown Bog SPA.

3.2.3 Disturbance to Key species

Disturbance to the species supported within the Natura 2000 site is likely to increase where there is an increase in activity levels from recreation and amenity or from developments within or adjacent to designated areas. Sources of disturbance include noise, vibration, light, construction and operation activities or other sources of disturbance arising from recreation and amenity or from the inappropriate timing of works. The Natura 2000 sites potentially affected include Lough Ree cSAC (the otter *Lutra lutra* is a qualifying species at this site), Glen Lough SPA, Lough Kinale and Derragh Lough SPA, Lough Ree SPA and Ballykenny-Fisherstown Bog SPA (all sites designated for bird species that can be vulnerable to disturbance, particularly during the nesting season).

A review of the settlement zoning maps included in the Plan found that only two settlements were close enough to designated sites to potentially affect them through disturbance – Clondra, adjacent to Ballykenny Fishertown Bog SPA and Lanesboro, adjacent to Lough Ree cSAC and SPA.

The Plan does not provide for any increases in land zoned for development. In the case of Lanesboro, those lands in close proximity to the designated site are zoned for either (a) Protected Area Passive Amenity or (b) Recreational Amenity and Green Spaces and therefore any increases in activity would be expected to be minimal and are not expected to cause any significant disturbance to species for which the site is designated.

Similarly in the case of Clondra those lands in close proximity to the designated site is zoned for Recreational Amenity and Green Spaces and therefore any increases in activity would be minimal and would not be expected to cause any significant disturbance to species for which the site is designated.

3.2.4 Changes in Key Indicators of Conservation Value

The key indicators of conservation value for Natura 2000 sites in Co. Longford are surface water and groundwater quality and quantity. Impacts on Natura 2000 sites may occur where there are hydrological connections between the sites and development areas. Implementation of the Plan may result in alterations to the hydrological regime or physical environment of sites from abstraction, drainage, and discharges to watercourses or groundwater resources. Of particular importance will be the provision of water supplies and the disposal of wastewater.

A review of information provided by the Waste Services department of Longford County Council confirms that all Waste Water Treatment (WWT) plants within the towns included in the settlement strategy have sufficient capacity to treat wastewater produced by the existing population. The Plan also provides for the permitting of new development only where adequate and appropriate waste water infrastructure is provided. Any increase in population within the towns and settlements affected by the Plan will increase the loading on the existing wastewater infrastructure. In the absence of adequate treatment, discharges from such plants can potentially increase the nutrient loading on receiving waters with direct, long term and adverse consequences for the aquatic environment. The abstraction of water for public and group schemes supply has the potential to affect Natura 2000 Sites where hydrological pressures arise.

The Natura 2000 sites potentially affected include those that are surface water dependent, in particular Lough Ree cSAC and Lough Forbes Complex cSAC. These sites are vulnerable as waste water from a number of towns within Longford is discharged to rivers which ultimately drain into these lakes. Cumulative impacts through waste water discharges from surrounding counties may also affect these sites, as well as indirectly affecting sites downstream in the River Shannon.

Development located in proximity to groundwater dependent habitats may interfere with the hydrogeological regime that supports groundwater dependent qualifying interests such as fens, bogs and turloughs. Drainage on and around bogs could potentially increase flow from the bog area and may cause drying out. This would reduce the extent and quality of habitat. The Natura 2000 sites potentially affected include Lough Ree cSAC, Fortwilliam Turlough cSAC, Lough Forbes Complex cSAC, Ardagullion Bog cSAC, Brown Bog cSAC and Clooneen Bog cSAC.

3.3 Conservation Objectives

It is an aim of NPWS to draw up conservation plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site. Where no Management Plan is yet available, NPWS have provided generic Conservation Objectives for Natura 2000 Sites.

One generic Conservation Objectives has been provided for SPAs, as follows:

- To maintain the bird species of special conservation interest for which the SPA has listed, at favourable conservation status.

A Generic Conservation Objective for cSACs has been provided as follows:

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

Favourable conservation status of a species can be described as being achieved when: '*population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.*'[3]

Favourable conservation status of a habitat can be described as being achieved when: '*its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable*'.[3]

Conservation Objectives, where available, were downloaded from the NPWS website (www.npws.ie) in November 2013. Conservation Objectives for those sites screened in at Stage 1 are given in Table 3.2.

Table 3.2: Conservation Objectives

Site Name	Conservation Objectives
Lough Ree cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [1355][4] *Lutra lutra* [3150] Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(* important orchid sites) [7120] Degraded raised bogs still capable of natural regeneration [7230] Alkaline fens [8240] *[5] Limestone pavements [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91D0] * Bog woodland

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

[4] Species and habitat codes as per Annex I and Annex II of the Habitats Directive.

[5] *Priority habitats as per Annex I of the EU Habitats Directive.

Site Name	Conservation Objectives
Fortwilliam Turlough cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [3180] * Turloughs
Lough Forbes Complex cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [3150] Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the *Rhynchosporion* [91E0]* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)·
Ardagullion Bog cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the *Rhynchosporion*
Brown Bog cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the *Rhynchosporion*
Clooneen Bog cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the Rhynchosporion [91D0] * Bog woodland
River Shannon Callows cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [1355] *Lutra lutra* [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6510] Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*) [8240] * Limestone pavements [91E0]* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae*, *Salicion albae*)
Garriskil Bog cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the *Rhynchosporion*

Site Name	Conservation Objectives
Moneybeg and Clareisland Bogs cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7110] * Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the *Rhynchosporion*
Ballymore Fen cSAC	Objective: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the cSAC has been selected: [7140] Transition mires and quaking bogs
Middle Shannon Callows SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Whooper Swan (*Cygnus cygnus*), Wigeon (*Anas penelope*), Corncrake (*Crex crex*), Golden Plover (*Pluvialis apricaria*), Lapwing (*Vanellus vanellus*), Black-tailed Godwit (*Limosa limosa*), Black Headed Gull (*Chroicocephalus ridibundus*), Wetlands & Waterbirds (A999)
Glen Lough SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Whooper Swan (*Cygnus cygnus*)
Lough Kinale and Derragh Lough SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Pochard (*Aythya ferina*), Tufted Duck (*Aythya fuligula*), Wetlands & Waterbirds
Lough Ree SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Whooper Swan (*Cygnus cygnus*), Wigeon (*Anas penelope*), Teal (*Anas crecca*), Mallard (*Anas platyrhynchos*), Shoveler (*Anas clypeata*), Tufted Duck (*Aythya fuligula*), Common Scoter (*Melanitta nigra*), Goldeneye (*Bucephala clangula*), Little Grebe (*Tachybaptus ruficollis*), Coot (*Fulica atra*), Golden Plover (*Pluvialis apricaria*), Lapwing (*Vanellus vanellus*), Common Tern (*Sterna hirundo*), Wetlands & Waterbirds.
Ballykenny-Fisherstown Bog SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Greenland White-fronted Goose (*Anser albifrons flavirostris*)
Lough Iron	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Whooper Swan (*Cygnus cygnus*), Wigeon (*Anas Penelope*), Teal (*Anas crecca*), Shoveler (*Anas clypeata*), Coot (*Fulica atra*), Golden Plover (*Pluvialis pricaria*), Greenland White-fronted Geese (*Anser albifrons flavirostris*), Wigeon (*Anas Penelope*), Teal (*Anas crecca*), Shoveler (*Anas clypeata*), Coot (*Fulica atra*), Golden Plover (*Pluvialis pricaria*), Greenland White-fronted Geese (*Anser albifrons flavirostris*), Wetlands & Waterbirds.
Lough Derravaragh SPA	Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Whooper Swan (*Cygnus cygnus*), Pochard (*Aythya farina*), Tufted Duck (*Aythya fuligula*), Coot (*Fulica atra)*, Wetlands & Waterbirds.

Section 4 Mitigation Measures

4.1 Introduction

Where it cannot be demonstrated that there will be no adverse effects from implementation of the Plan, mitigation measures have been devised. The measures that have been incorporated are compatible with those proposed by the SEA environmental report and with other relevant plans and programmes e.g Programme of Measures proposed by the River Basin Management Plan and SEA.

4.2 Measures to protect Habitats and Species

As outlined in Section 3.3 of this assessment a number of significant effects that could impact on habitats and species have been identified. No zoning or specific projects are proposed by the Plan that would result in direct impacts on any Natura 2000 site. However, the Plan does support the development under certain circumstances of otherwise unzoned, agricultural land for residential purposes and this could lead to direct and indirect loss or disturbance of habitats and species.

Measures have been included in the objectives of the Plan that will ensure these impacts are avoided. As a result of the Appropriate Assessment and Strategic Environmental Assessment of the Plan, a number of policies have been amended to strengthen the protection afforded to Natura 2000 sites. These policies will ensure that appropriate assessments are carried out where development projects are likely to have significant effects on European designated sites. This will ensure that project level effects, which cannot be predicted at the Development Plan level, will be mitigated and encroachment on protected sites through inappropriate development will be avoided. Policies within the Longford County Development Plan that will act to protect the Natura 2000 network include the following:

Section 4.3 Retail Development - General Policy 13

It will be Council policy to ensure that all proposed retailing projects and any associated improvement works or associated infrastructure such as parking facilities, individually or in combination with other plans and projects, are subject to Appropriate Assessment to ensure there are no likely significant effects on the integrity of any Natura 2000 sites[6] in the County.

Section 4.4 Agriculture – AGR 10: Intensive Pig and Poultry Units

AGR 10 (a): Depending on the size of the unit, an E.I.S. and/or Appropriate Assessment may be required. In addition an Integrated Pollution Control licence may be required from the Environmental Protection Agency.

AGR 10 (b): It will be Council policy to ensure that all proposed agricultural projects and any associated improvement works or associated infrastructure, individually or in combination with other plans and projects, are subject to Appropriate Assessment to ensure that there are no likely significant effects on the integrity of any Natura 2000 sites in the County.

AGR 10 (c): The Council will implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such planning applications would need to be supported by an Appropriate Assessment where relevant.

[6] In accordance with requirements under Article 6(3) and 6(4) of the EU Habitats Directive.

Section 5.5.2 Renewable Energy Sources – Policy RE 1

The Council shall prepare, where resources permit, a Renewable Energy Strategy for the County which will support the development of renewable energy production and ancillary facilities in order to enhance the sustainability of the County, promoting a low carbon economy and lifestyle. The Strategy shall be subject to Appropriate Assessment and Strategic Environmental Assessment as relevant.

Policy RE 6

It will be Council policy to ensure that all proposed renewable energy projects, such as those related to wind or hydroelectric energy, and any associated improvement works or associated infrastructure, individually or in combination with other plans and projects, are subject to Appropriate Assessment to ensure that there are no likely significant effects on the integrity of any Natura 2000 sites.

Section 6.2.2 Natural Heritage and Biodiversity Policy NHB 1

It is an objective of the Council to protect, conserve and enhance the County's biodiversity and natural heritage. This includes wildlife (flora and fauna), habitats, landscapes and/or landscape features of importance to wildlife or which play a key role in the conservation and management of natural resources such as water.

Policy NHB 2

It is an objective of the Council to encourage and promote the appropriate management and enhancement of the County's biodiversity and natural heritage.

Policy NHB 6

It is the policy of the Council to protect sites designated in National and European legislation, and in other relevant International Conventions, Agreements and Processes. This includes sites proposed to be designated or designated as:

• Special Areas of Conservation under the Habitats Directive1 (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora)

• Special Protection Areas under the Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds)

Both the Birds and Habitats Directives have been transposed in Irish law by Ministerial Regulation. The European Communities (Birds and Natural Habitats) Regulations 2011 are the most important of these because they provide for the protection measures and management regime that apply to SPAs and SACs.

No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans or projects (Except as provided for in Section 6(4) of the Habitats Directive, viz. there must be:

a) no alternative solution available,

b) imperative reasons of overriding public interest for the plan to proceed; and

c) Adequate compensatory measures in place.)

- Natural Heritage Areas (NHAs), Nature Reserves, and Refuges for Flora or Fauna under the Wildlife Act, 1976 as amended by Wildlife (Amendment) Act, 2000.

Policy NHB-7

The Council shall seek to identify, protect and conserve, in co-operation with the relevant statutory authorities, vulnerable, rare and threatened species of wild fauna and flora and their habitats with particular reference to those species identified in National and European legislation, and in other International Conventions, Agreements and Processes.

Policy NHB 8

The Council shall seek to co-operate with statutory and other relevant agencies to identify and protect a representative sample of the County's wildlife habitats, of local or regional importance, not otherwise protected by legislation. In addition, it is Council policy to protect;

- Ramsar sites under the Convention on Wetlands of International Importance (especially as Waterfowl Habitat).

Policy NHB 10

Protect and enhance important landscape features and their setting including rivers, streams, canals, lakes and associated wetlands such as reedbeds and swamps; ponds; springs; bogs; fens; trees; woodlands and scrub; hedgerows and other field boundary types such as stone walls and ditches. These are important because;

a) they form part of a network of habitats, corridors and 'stepping stones' essential for wildlife to flourish, thus providing a high quality natural environment for all,

and/or

b) they protect and enhance surface water and groundwater resources and are essential as part of the integrated approach to the management of water resources, necessary to ensure the highest water quality into the future, as set out in the Water Framework Directive (Directive 2000/60/EC establishing a framework for Community action in the field of water policy).

Policy NHB 21 (B)

All projects and plans arising from this plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant.

Policy NHB 23

The National Parks and Wildlife Service will be invited to prioritise the preparation of Management Plans for Natura 2000 Sites which are located in the vicinity of the County. This is in order to examine how the Conservation Objectives of the sites can be achieved in the context of the proper planning and sustainable development of the Plan area.

Section 6.2 Heritage Policy HER 4

The Planning Authority shall endeavour to identify important landscapes and habitats and the importance of local character, identity and distinctiveness, in both the natural and built heritage of the County. This shall include an investigation of the Heritage Plan for the County into locally important and small scale heritage sites. Where these have been identified as important under the Heritage Plan, they shall be afforded the relevant protection.

Tourism Objective 3

To facilitate the delivery of the Tourism Strategy as illustrated by Diagram 4.1: Illustrative graphic of Longford's Tourism Strategy for the purposes of the Development Plan, prioritising the development of flagship attractions and tourism product within the County.

As part of Policy TOU 20 (a)

Mid Shannon Wilderness Park Villages

Development of Mid Shannon Tourist Trail (See Map Insert 5). Any development of tourism infrastructure along the route of the Mid Shannon Tourist Trail will be subject to Appropriate Assessment, in compliance with the requirements of Article 6 of the Habitats Directive.

4.3 Water Protection

Section 3.3 of this assessment identified that impacts on water quality within Natura 2000 sites have potential to arise through abstraction of drinking water and point source discharges of wastewater. Where necessary, Longford County Council has made applications to the Environment Protection Agency for Waste Water Discharge Authorisation and Certificates of Authorisation from the EPA.

In addition, any newly proposed or upgraded wastewater treatment plants should fully comply with all Urban Waste Water Regulations requirements 2001 – 2004 (paying particular emphasis to Phosphorous due to the Natura 2000 sites' sensitivity), and should furthermore comply with all wastewater discharge authorisation requirements as per 2007 Regulations and Urban Wastewater Regulations 2001.

A review of information provided by the Waste Services department of Longford County Council confirms that all Waste Water Treatment (WWT) plants within the towns included in the settlement strategy have sufficient capacity to treat wastewater produced by the existing population. The Plan also provides for the permitting of new development only where adequate and appropriate waste water infrastructure has been provided (**Policy WS2**).

Strict control measures have been included in the Plan to ensure that single dwelling WWT Discharges comply with relevant Environmental Protection Agency guidance (EPA) (**Policy HOU DS 12**). The council is committed to protecting both groundwater and surface waters through implementation of the River Basin Management Plans for the two River Basin District Authorities which relate to Longford (**Policy ENV 7** and **Policy ENV 9**).

Impacts from the abstraction of water will be addressed through compliance with environmental and ecological legislative requirements and the promotion of water conservation. A policy is included in the Plan to ensure that any abstraction of water from Lough Ree be subject to assessment for compliance with the requirements of Article 6 of the Habitats Directive (**Policy ILW3**).

Impacts associated with drainage of wetlands are addressed through the implementation of the relevant sections of the Planning and Development (Amendment) (No. 2) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment (**Policy AGR 10 (c)**).

Policies within the Longford County Development Plan that will act to protect the water quality, quantity and availability within sensitive Natura 2000 sites include the following:

Section 3.2.1 Designated Settlements - Policy HOU DS 12(e)

Where it is proposed to dispose of treated effluent direct to a watercourse, the applicant shall submit an Assimilative Capacity Report on the receiving water, prepared by an experienced hydrologist and containing the following information;

i. Assessing the chemical, biological (Q rating) and bacterial condition of the receiving water.

ii. Assessing the flow data of receiving waters, indicating 95 %ile flow and Dry Weather Flow.

iii. Provide an assessment of the associated impacts of the proposed discharge on the chemical, biological and bacteriological quality of the receiving waters with regard to the relevant legislation.

Policy HOU DS 12(f)

Where it is proposed to dispose of treated effluent by percolation, a detailed site assessment and characterisation should be submitted in accordance with EPA standards. The Council may require an experienced hydrogeologist report to be submitted on the likely impact of the discharge on ground water quality.

Section 4.4 Agriculture - Policy AGR 6

To control, through the development management process and the relevant environmental legislation, the application of effluent spreading on land in order to protect ground and surface water sources in the County. This will limit spreading to certain times of the year and/ or prohibit spreading in certain areas.

Policy AGR 7

The Planning Authority will require adequate provision for the collection, storage and disposal of effluent produced from agricultural developments. Developers are required to comply with relevant Department of Agriculture Guidelines[7] and the Nitrates Regulations in this regard.

Policy AGR 8

Sites to be developed for agriculture purposes shall be designed to the highest standards to provide quality environments with adequate provision where necessary for landscaping, car and truck parking and circulation and the appropriate disposal of foul and surface water.

Policy AGR 10 (c)

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

Section 5.2.3 - Policy WS 2:

Development shall only be permitted once adequate and appropriate waste water infrastructure is provided. Where required, public wastewater collection and treatment infrastructure - which fully complies with requirements of the Urban Waste Water Treatment Directive (Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment) (amended by Directive 98/15/EEC) including the need to provide secondary treatment and other treatment as required - shall be operational and with adequate capacity to accommodate waste water arising from development, prior to developments being occupied. Discharges arising from this collection and treatment shall also comply with the requirements of the Directive.

Policy WS 2(a)

It is the policy of Longford County Council to investigate the preparation a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council. Such a Plan may be prepared jointly with other Water Services Authorities.

Policy WS 3

[7] *"Explanatory Handbook for Good Agricultural Practice Regulations"*, DAF 2006 or subsequent update

It is the policy of Longford County Council to support the establishment of additional projects in terms of improving existing water supply, establishing new supplies, sewerage mains provision (including the connection of unsewered areas, including individual properties/premises, serviced by septic tanks to the existing and planned sewer network) and improvement of existing treatment plants in the medium and long-term and for their extension to include adjoining residential dwellings.

Policy WS 11

To protect, within its powers, valuable groundwater sources and important surface water bodies from pollution through infiltration by domestic, agricultural or other sources effluent/pollutant material.

Policy WS 16:

The Council shall consult the relevant European Directives relating to wastewater collection, treatment and discharge along with EPA Guidance and Advice Notes in the provision, maintenance and expansion of water treatment systems in the County.

Section 5.3.1 Surface Water and Drainage - Policy SW 1

The discharge of surface water run-off and rainwater into foul sewage systems shall be strictly prohibited.

Section 5.3.2 Flooding - Policy FLO 3

The Council shall implement the recommendations and provisions of the DEHLG/OPW publication Flood Risk Management Guidelines 2009 (or any updated/superseding document) in relation to flood risk management within the County.

Policy FLO 5

Where the probability of flooding from rivers is low (less than 0.1%, flood zone C) the developer should satisfy him or herself that the probability of flooding is appropriate to the development being proposed. Among other things, mapping including the OPW's Pluvial and Groundwater Preliminary Flood Risk Assessment mapping should be considered for this purpose.

Section 6.1.2 Prevention of pollution - Policy ENV 6

The Council shall seek to protect ground and surface water resources from pollution. To this end, any identified major catchment areas of surface water bodies, capable of use as a potable water resource or other beneficial use and areas of aquifer vulnerability shall be protected. Development of a potentially pollutant nature in these areas and any future areas identified shall be prohibited.

Policy ENV 7:

It is the policy of Longford County Council to encourage and promote compliance with the recommendations contained in the Shannon International and North Western International River Basin Management Plans.

Policy ENV 8

The Council, where possible, in tandem with the Geological Survey Ireland (GSI) will support the development and implementation of a Groundwater Protection Scheme.

Policy ENV 9

The Council shall implement the relevant recommendations contained within the River Basin Management Plans for the Shannon International River Basin District and the North Western International River Basin District, in order to facilitate the implementation of the Water Framework Directive.

Policy ENV 11

Development proposals that involve the physical modification of water bodies, including abstraction of water, shall be considered having regard to the potential effect on habitats and plant and animal species, with particular consideration given to Natura 2000 sites and specific actions proposed where negative impacts are anticipated. Where appropriate, proposals shall be screened for Appropriate Assessment in consultation with the National Parks and Wildlife Service and other appropriate interest groups.

Section 6.2.2.7 Inland Lakes and Waterways - Policy ILW 1

The Royal Canal, Rivers Shannon, Inny and Camlin and Lough Ree, Lough Gowna and the County's other rivers and lakes are recognised as important amenity and recreational resources and, as such, it is the policy of the Council to preserve, protect and enhance these important resources.

Policy ILW 4

Longford County Council shall, within its powers, protect Lough Ree from unsustainable, large-scale and high volume abstraction of water resources for use in areas external to Longford County. All abstractions of water from Lough Ree will be subject to assessment for compliance with the requirements of Article 6 of the Habitats Directive, in accordance with Policy NHB 6 and Policy NHB 22.

Policy ILW 8

Development will be strictly controlled in the vicinity of the inland waterways of the County and will not normally be permitted. Application for such development shall be assessed, in addition to normal planning criteria, in terms of its potential impact on the visual, recreational, ecological and environmental integrity of the area.

Policy ILW 17

The Council shall support measures to curtail the spread of invasive species within the Lakes and Inland Waterways and their vicinity, through the development of awareness programmes and the promotion of best practice procedures**.**

Policy SW 2

Surface water storage measures shall be provided where it is considered that the surface water run-off levels exceed permissible discharge rates. Storm water run-off design should be carried out in accordance with Sustainable Urban Drainage Standards (SUDS), "Dublin Corporation Stormwater Management Policy Technical Guidelines" and "Greater Dublin Regional Code of Practice for Drainage Works" incorporating "Greater Dublin Strategic Drainage Study, Volume 2 , New Developments" or any future updates.

Section 5 Conclusion

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

The risks to the safeguarding and integrity of the qualifying interests and conservation objectives of the Natura 2000 network have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of impacts in the first place. In addition, all lower level plans and projects arising through the implementation of the Plan will themselves be subject to Appropriate Assessment when further details of policies and objectives or design and location are known.

Having incorporated mitigation measures, it is considered that the Plan will not affect the integrity of the Natura 2000 network[8].

[8] Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:
(a) no alternative solution available;
(b) imperative reasons of overriding public interest for the plan to proceed; and
(c) adequate compensatory measures in place.