Longford Town Local Transport Plan and County Longford Active Travel Strategy

Screening for Appropriate Assessment

Longford County Council

Final report

Prepared by LUC

July 2023

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Introduction

1.1 LUC was commissioned by Longford County Council (LCC) to undertake Screening for Appropriate Assessment (AA), and if necessary, AA of the Longford Town Local Transport Plan (LTP) (latest version July 2023) and County Longford Active Travel Strategy (ATS) (latest version August 2022).

1.2 The Longford Town LTP and County Longford ATS sit within a hierarchy of planning policy. The Regional Spatial and Economic Strategy for the Eastern and Midlands Region (RSES) 2019-2031 **[See reference** 1**]** identified the following Regional Policy Objectives (RPOs) of relevance for Longford Town:

- RPO 4.59: To enhance accessibility and sustainable mobility within the town centre by improving links between the core and surrounding areas through the further integration of public transport, walking and cycling facilities.
- RPO 4.63: Support Longford Town as a strategic portal to the northwest and south in recognition of its location at the junction of the N55; M4/N4 Dublin/Sligo and N5; due to its proximity to the regional growth centre of Athlone; and support its role as a strategic employment centre.
- RPO 6.19: Support the local strategies that are already in place to link the River Shannon Blueway, The Royal and Grand Canal Greenways and the proposed Barrow Blueway right across the Midlands, incorporating the towns of Longford, Athlone, Mullingar, Tullamore and Portarlington.
- RPO 8.6: Prepare a Local Transport Plan for Longford Town. Such LTPs will include transport priorities for each settlement in terms of public transport infrastructure and services; cycle investment; improvements to the pedestrian environment; and road enhancements.

1.3 The Longford County Development Plan 2021-2027 **[See reference 2]**, adopted in October 2021, sets out the planning policies and objectives for the sustainable development of the county.

Core Objective CPO 4.9 states that the Council will prepare and implement a Local Area Plan (LAP) for Longford Town to align with the policy objectives of the NPF, Eastern and Midlands RSES and Longford County Development Plan 2021-2027, within two years from the adoption of the Longford County Development Plan 2021-2027. Any such LAP will be informed by a LTP to be prepared for Longford Town. Accordingly, a LAP and separate LTP is to be prepared for Longford Town.

1.4 Key objectives for transport and travel in County Longford and Longford Town as set out in the Longford County Development Plan include:

- Encouraging a general shift towards increased use of public transport in the county.
- Improving transport connectivity and establishing integrated transport nodes.
- Reducing the need to travel by private vehicle.
- Encouraging and facilitating walking and cycling, putting the pedestrian first in residential and urban areas.
- Providing high quality road access on routes of economic importance whilst ensuring road safety.
- Supporting and facilitating the development of infrastructure to increase the usage of electric vehicles.
- Promoting place-making in towns and villages to improve quality of life.
- Relieving traffic congestion particularly in town centres by means of traffic calming and traffic management.

1.5 LCC, as the competent body responsible for the Longford Town LTP and County Longford ATS preparation, is also responsible for ensuring both documents are prepared in compliance with the 'Habitats Directive' **[See reference 3]** and 'Birds Directive' **[See reference 4]**, as transposed into national legislation.

Context for the Longford Town Local Transport Plan and County Longford Active Travel Strategy

1.6 The Longford Town LTP aims to establish a strategic framework for the future development of transport infrastructure within Longford Town and its environs. The function of the LTP is to enhance accessibility and sustainable mobility within Longford Town centre, by improving links between the core and surrounding areas through the further integration of public transport, walking and cycling facilities. The Longford Town LTP does not contain any policies. The LTP will inform a joint Local Area Plan that will be prepared by Longford Town and Environs.

1.7 The County Longford ATS aims to establish a framework for the future development of active travel in the county in line with LCC's ambition to "establish Longford as a pioneering county for active travel" **[See reference 5]**. The County Longford ATS outlines the opportunities and constraints to active travel infrastructure in County Longford in response to the Climate Change Emergency, high levels of obesity and inactivity, and the demand for new active travel infrastructure in Ireland post COVID-19. Unlike the Longford Town LTP, the Longford County ATS does not identify any strategies for new development of active travel infrastructure.

The requirement to undertake Appropriate Assessment of plans and projects

1.8 The 'Habitats Directive' (Directive 92/43/EEC) is the principal legislative instrument for the protection and conservation of biodiversity within the European Union and lists certain habitats and species that must be protected within wildlife conservation areas. The 'Birds Directive' (Directive 2009/147/EC) provides for a network of sites within the European Union which protect birds at their breeding, feeding, roosting and wintering areas. The Habitats Directive and the Birds Directive form the cornerstone of Europe's nature conservation policy.

1.9 The requirement for Appropriate Assessment is set out in Articles 6(3) and 6(4) of the Habitats Directive (92/43/EEC) which states:

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

1.10 The Habitats Directive and the Birds Directive are transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011 **[See reference** 6**]**, and Part XAB of the Planning and Development Act 2000, as amended **[See reference** 7**]**. Therefore, it is a

requirement that each plan or project in Ireland must undergo an assessment of its implications on any European site before any decision is made to allow that plan or project to proceed. This process is referred to as Appropriate Assessment (AA).

1.11 Paragraph 2.1.1 of the Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities **[See reference 8]** provides the below definition of the type of plans that should be subject to AA:

> "Plans include all statutory and non-statutory land use, framework and sectoral plans and strategies to the extent that they have the potential to have significant effects on a Natura 2000 site. This incorporates 'plans and programmes' covered by the SEA Directive, and other plans and strategies, including those that are designed or intended to benefit the environment or heritage, such as Heritage and Biodiversity plans, recreation/amenity plans or strategies, and River Basin Management Plans."

1.12 Therefore, based on the above definition of a plan, the decision was made that the Longford Town LTP and County Longford ATS should be subject to Screening for AA.

1.13 In Ireland, the Natura 2000 network of European sites comprise:

- Special Areas of Conservation (SAC) and candidate SAC designated under the Habitats Directive for particular habitat types (Annex I) and species (Annex II); and
- Special Protection Areas (SPA) and proposed SPA designated under Article 4(1) of the Birds Directive for rare and vulnerable birds listed in Annex I, or Article 4(2) for regularly occurring migratory species not listed in Annex I.

1.14 Although not specifically required to be considered in the AA process, it is best practice to adopt the precautionary principle and to include Designated Wetlands of International Importance (known as Ramsar sites) (classified under the Ramsar Convention 1971 **[See reference 9]**) in the assessment.

1.15 The overall purpose of AA is to conclude whether or not a plan or project would adversely affect the integrity of a European site. This is judged in terms of the implications of the plan or project for a site's 'qualifying interests' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated); from these the 'conservation objectives' of the site are derived.

1.16 Significantly, AA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages in the Appropriate Assessment process

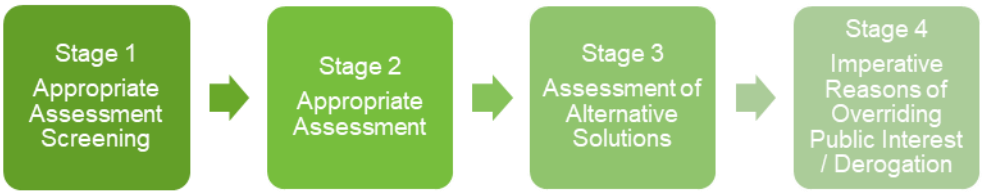
1.17 AA is a four-stage process with tests at each stage:

- Stage 1: Appropriate Assessment Screening
- Stage 2: Appropriate Assessment
- Stage 3: Assessment of Alternative Solutions
- Stage 4: Imperative Reasons of Overriding Public Interest/Derogation

1.18 An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

1.19 The four stages in the AA process are discussed in more detail in **Chapter 2: Methodology**.

Figure 1.1: Four-stages in the AA process



1.20 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the avoidance of likely significant effects at Stage 1, and through AA at Stage 2 by the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

Case law changes

1.21 This report has been prepared with regard to relevant rulings by the Court of Justice of the European Union (CJEU), the High Court, and the Supreme Court, including but not limited to the following rulings. The rulings have been grouped into relevant topics. A summary of the rulings is provided in **Appendix B**.

Interpretation of 'Likely Significant Effects'

- European Court of Justice 7th September 2004 by Advocate General Kokott; Case C-127/02 Waddenzee -v- Secretary of State for Agriculture, Nature Conservation and Fisheries

Interpretation of direct, indirect and in-combination effects

- European Court of Justice Opinion 22nd November 2012 by Advocate General Sharpston; Case C 258/11 Peter Sweetman and Others-v- An Bord Pleanála
- European Court of Justice 7th November 2018; Case C 461/17; Holohan & Others v. An Bord Pleanála High Court Ruling 2nd December 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 622; High Court Record No. 2020 238 JR; Highlands Residents Association and Protect East Meath Limited -v- An Bord Pleanála, Ireland and The Minister for Culture Heritage and The Gaeltacht, Ireland and The Attorney General

Application of the 'Precautionary Principle'

- European Court of Justice Judgement 11th April 2013 by the Third Chamber; Case C 258/11 Peter Sweetman and Others -v- An Bord Pleanála

Application of mitigation / 'best practice measures'

- European Court of Justice Judgement 12th April 2018 by the Seventh Chamber; Case C 323/17; People Over Wind & Sweetman -v- Coillte Teoranta
- European Court of Justice 19th April 2018; Case C 164/17; Grace & Sweetman -v- An Bord Pleanála
- High Court Ruling 2nd February 2019 by Mr. Justice Barniville; Neutral Citation [2019] IEHC 84; High Court Record No. 2017 883 JR; Kelly -v- An Bord Pleanála & Anor

- High Court Ruling 21st June 2019 by Mr. Justice Simons; Neutral Citation [2019] IEHC 450; High Court Record No. 2019 20 JR; Heather Hill Management Company clg & anor -v- An Bord Pleanála & Anor
- High Court Ruling 31st January 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 39; High Court Record No. 2019 33 JR; Peter Sweetman -v- An Bord Pleanála, Ireland and The Attorney General

Appropriate Assessment

- High Court Ruling 25th July 2014 by Ms. Justice Finlay Geoghegan; Neutral Citation [2014] IEHC 400; High Court Record No. 2013 802 JR; Kelly -v- An Bord Pleanála
- High Court Ruling 25th February 2016 by Mr. Justice Barton; Neutral Citation [2016] IEHC 134; High Court Record No. 2013 450 JR; Balz & Heubach -v- An Bord Pleanála
- Supreme Court Ruling 17th July 2018 by Mr Justice Clarke; Neutral Citation [2018]; Supreme Court Record No. 2014/488 JR; Connelly -v- An Bord Pleanála
- European Court of Justice 7th November 2018; Case C 461/17; Holohan & Others v. An Bord Pleanála

Developer's responsibilities

- European Court of Justice 7th November 2018; Case C 461/17; Holohan & Others v. An Bord Pleanála

Structure of the report

1.22 This chapter has introduced the Longford Town LTP and County Longford ATS; the requirement to undertake Screening, and if necessary, AA; the stages

in the AA process; and relevant case law. The remainder of this report is structured into the following sections:

- **Chapter 2** sets out the approach undertaken for Stage 1: Screening.
- **Chapter 3** sets out the screening assessment of the Longford Town LTP and County Longford ATS.
- **Chapter 4** presents the conclusions of the assessment and describes the next steps to be undertaken.

1.23 The main report is supported by the following appendices:

- **Appendix A** contains a map of the relevant European sites.
- **Appendix B** details the relevant case law rulings by the Court of Justice of the European Union (CJEU), the High Court, and the Supreme Court.
- **Appendix C** sets out the attributes of the relevant European sites.

Chapter 2

Methodology

2.1 This chapter sets out the approach used to undertake Screening for Appropriate Assessment of the Longford Town LTP (latest version July 2023) and the County Longford ATS (latest version August 2022).

2.2 It has been undertaken to comply with the requirements of Articles 6(3) and 6(4) of the Habitats Directive.

Guidance documents

2.3 This report has been prepared with regard to the following European and national guidance documents. The list is ordered by publication date.

European

- Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on of Article 6(3) and (4) of the Habitats Directive 92/43/EEC **[See reference** 10**]**
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive **[See reference** 11**]**
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC **[See reference** 12**]**
- Commission guidance on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive (Directive 2011/92/EU, as amended by Directive 2014/52/EU) **[See reference** 13**]**

- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission **[See reference** 14**]**
- Communication from the Commission on the precautionary principle **[See reference** 15**]**

National

- OPR Practice Note PN01: Appropriate Assessment Screening for Development Management **[See reference** 16**]**
- Guidance on the strict protection of certain animal and plant species under the Habitats Directive in Ireland **[See reference** 17**]**
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities **[See reference** 18**]**
- Circular NPW 1/10 & PSSP 2/10. Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities **[See reference** 19**]**.
- Circular SEA 1/08 & NPWS 1/08. Appropriate Assessment of Land Use Plans **[See reference** 20**]**.
- Circular PD 2/07 & NPWS 1/07. Compliance conditions in respect of developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites **[See reference** 21**]**.

Data sources

2.4 The following data sources were used to inform the baseline for the assessment:

- Longford County Development Plan 2021-2027 **[See reference** 22**]**;

- National Parks and Wildlife Service Protected Sites map viewer **[See reference** 23**]**;
- National Parks and Wildlife Service Protected Sites data **[See reference** 24**]**, including Designated Sites boundary data, site-specific Conservation Objectives, SAC datasheets, and SPA datasheets;
- Various Species Action Plans and Reports **[See reference** 25**]**;
- Information on species records and distributions, obtained from the National Biodiversity Data Centre;
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency **[See reference** 26**]**;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland **[See reference** 27**]**;
- Satellite imagery and mapping obtained from various sources and dates including Google and Ordinance Survey Ireland; and
- Information on the existence of permitted developments, or developments awaiting decision, in the Longford area.

Overview of the Appropriate Assessment process

2.5 The AA process comprises four main stages as summarised in the subsequent paragraphs.

Stage 1: Screening

Process

- Identifies whether the plan or project is directly connected to, or necessary for, the management of a European site(s).

Tasks

- Description of the Longford Town LTP and County Longford ATS.
- Identification of potentially affected European sites and their conservation objectives.
- Assessment of likely significant effects of the plan(s) alone or in-combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures.
- Screening Conclusion Statement.

Output

- The output from this stage is a determination of not significant, significant, potentially significant, or uncertain effects. The latter two determinations will cause the plan or project to be taken forward to Stage 2.

Stage 2: Appropriate Assessment

Process

- Identifies whether the plan or project may have significant impact(s) upon European site(s) either alone or in-combination with other plans or projects.

Tasks

- Information gathering (data on European sites of relevance to the Longford Town LTP and County Longford ATS).
- Impact prediction.
- Evaluation of the Longford Town LTP and County Longford ATS impacts in view of conservation objectives of European sites.
- Where impacts are considered to directly or indirectly affect qualifying interests of European sites, identify how these effects will be avoided or reduced ('mitigation').
- Appropriate Assessment Conclusion Statement.

Output

- The output from this stage is a Natura Impact Statement (NIS). This document must include sufficient information for the competent authority to carry out the Appropriate Assessment. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded despite incorporation of measures to avoid or reduce the adverse effects, then the process must consider alternatives (Stage 3).

Stage 3: Assessment of alternative solutions

Process

- Assesses alternative ways of achieving the objectives of the plan or project that avoid adverse impacts on the integrity of a European site. May be carried out concurrently with Stage 2 in order to find the most appropriate solution.

Tasks

- Assessment of alternative solutions.

Output

- If no alternatives exist or all alternatives would result in negative impacts to site integrity, then the process either moves to Stage 4 or the plan or project is abandoned.

Stage 4: Imperative reasons of overriding public interest/derogation

Process

- Assesses whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists.

Tasks

- Identify and demonstrate ‘imperative reasons of overriding public interest’ (IROPI). NB: Prior consultation with Minister regarding IROPI.
- Demonstrate no alternatives exist.
- Identify potential compensatory measures.

Output

- This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

Stage 1: Screening

2.6 The purpose of the screening stage is to:

- Identify all aspects of the Longford Town LTP and County Longford ATS that would have no effect on a European site. These can be eliminated from further consideration in respect of this and other plans.
- Identify all aspects of the Longford Town LTP and County Longford ATS that would not be likely to have a significant effect on a European site (i.e. would have some effect because of links/connectivity but the effect is not significant), either alone or in combination with other aspects of the strategy or other plans or projects. These do not require Appropriate Assessment.
- Identify those aspects of the Longford Town LTP and County Longford ATS where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the strategy that will require Appropriate Assessment.

2.7 The four steps for undertaking Screening for AA of the Longford Town LTP and County Longford ATS are as follows:

- Step 1: Describe the LTP and ATS context.
- Step 2: Identify all relevant European sites, and compilation of information on their qualifying interests and conservation objectives.
- Step 3: Assess likely significant effects on the conservation objectives of the relevant European sites in relation to the LTP and ATS, alone and in-combination with other plans and projects.
- Step 4: Prepare Screening Statement.

Step 1: Description of the Longford Town LTP and County Longford ATS and their context

2.8 The first element of Screening is to provide the following information on the Longford Town LTP and County Longford ATS (see **Chapter 3: Stage 1: Screening**):

- Background and context;
- Purpose of the Longford Town LTP and County Longford ATS;
- Geographical area covered by the Longford Town LTP and County Longford ATS;
- Content of the Longford Town LTP and County Longford ATS including their aims, objectives and policies; and
- Stage of the Longford Town LTP and County Longford ATS.

Step 2: Identification of relevant European Sites

2.9 When assessing impact, qualifying interests of conservation interest are only considered relevant where a credible or tangible source-pathway-receptor link exists between the plan or project and qualifying species or habitats. In order for an impact to occur, there must be a risk initiated by having a 'source' (e.g. construction works), a 'receptor' (e.g. a protected species, associated aquatic or riparian habitats), and an impact pathway between the source and the receptor (e.g. a watercourse which connects the plan or project to the site designated for the protection of a species). If there is no pathway or the qualifying interests of the European site are not vulnerable (either directly or indirectly) to any impact predicted from the plan or project, then a site should not be screened in.

2.10 In Ireland, the Natura 2000 network of European sites comprise:

- Special Areas of Conservation (SAC) and candidate SAC designated under the Habitats Directive for particular habitat types (Annex I) and species (Annex II);
- Special Protection Areas (SPA) and proposed SPA designated under Article 4(1) of the Birds Directive for rare and vulnerable birds listed in Annex I, or Article 4(2) for regularly occurring migratory species not listed in Annex I; and
- Ramsar sites identified as internationally important wetland habitat under the 1971 Ramsar Convention are also considered in the assessment despite being at the wider international level.

Zone of Impact

2.11 The 'Zone of Impact' (ZoI) for a plan or project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the County Longford boundary, for example where there are ecological or hydrological links beyond the plan boundary. The ZoI will vary for different ecological features depending on their sensitivity to an environmental change **[See reference** 28**]**.

2.12 A distance of 15km is currently recommended by the NPWS in the case of plans as a potential ZoI which is derived from UK guidance **[See reference** 29**]**. Therefore, a distance of 15km from the boundary of the Longford Town LTP study area and 15km from the boundary of the County Longford ATS study area has been used in the first instance to identify European sites with the potential to be affected by the LTP and ATS. Consideration has also been given to whether any more distant European sites may be connected to the study areas via effects pathways, for example through hydrological links.

2.13 The assessment also takes into account areas that may be functionally linked to the European sites. The term 'functional linkage' is used to refer to the role or 'function' that land beyond the boundary of a European site might fulfil in

terms of supporting the species populations for which the site was designated or classified. Such an area is therefore ‘linked’ to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status.

2.14 While the boundary of a European site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species. Screening for AA therefore considers whether any European sites make use of functionally linked habitats, and the impacts that could affect those habitats.

2.15 Chapter 3 of this report identifies the relevant SACs/cSACs, SPAs/proposed SPAs, and Ramsar sites within 15km of the County Longford ATS and Longford Town LTP study areas. A map of the study areas and the relevant European sites is provided in **Appendix A**. **Appendix C** characterises each of the qualifying interests and conservation objectives of the European sites in context of each of the sites’ vulnerabilities.

Step 3: Assessment of ‘Likely Significant Effects’ of the Longford Town LTP and County Longford ATS

2.16 A precautionary approach was adopted in the assessment of Likely Significant Effects. A conclusion of ‘no Likely Significant Effect’ therefore has only been reached where it is considered very unlikely, based on current knowledge and the information available, that the Longford Town LTP and County Longford ATS would have a significant effect on the integrity of a European site.

2.17 The screening assessment has been conducted without taking mitigation into account, in accordance with the 'People over Wind' judgment.

Types of potential effects

2.18 The European Commission's Appropriate Assessment Guidance **[See reference** 30**]** outlines the following potential changes that may occur at a designated site, which may result in adverse effects on the integrity and function of that site:

- Physical loss/reduction of habitat area;
- Habitat or species fragmentation (functionally linked land);
- Non-physical disturbance (noise, light, vibration);
- Recreation pressure; and
- Changes to hydrology including water quality and quantity.

2.19 This thematic/impact category approach allowed for consideration to be given to the potential for cumulative effects of separate elements of the Longford Town LTP and County Longford ATS.

Interpretation of 'Likely Significant Effects'

2.20 In the Waddenzee case **[See reference** 31**]**, the CJEU ruled on the interpretation of Article 6(3) of the Habitats Directive, including that:

> An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 44). An effect should be considered 'significant', "if it undermines the conservation objectives" (para 48). Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be

considered likely to have a significant effect on the site concerned" (para 47).

2.21 A relevant opinion delivered to the Court of Justice of the European Union commented that:

"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

2.22 This opinion (the 'Sweetman' case **[See reference** 32**]**) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or de minimis; referring to such cases as those "that have no appreciable effect on the site". In practice such effects could be screened out as having no Likely Significant Effect – they would be 'insignificant'.

2.23 The Screening stage therefore considers whether the plans could have Likely Significant Effects either alone or in combination.

Mitigation provided by the Local Transport Plan and Active Travel Strategy

2.24 Some of the potential effects of the plans could be mitigated through the implementation of other aspects of the plan/strategy, policies in the Longford County Development Plan, or other regulatory mechanisms. Nevertheless, in accordance with the 'People over Wind' judgment, avoidance and reduction

('mitigation') measures cannot be relied upon at the Screening stage, and therefore, where such measures exist, they would be considered at the AA stage where Likely Significant Effects, either alone or in-combination, could not be ruled out.

Assessment of potential in-combination effects

2.25 Article 6(3) of the Habitats Directive requires Screening for AA where "a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives". Therefore, where likely insignificant effects are identified for the Longford Town LTP and County Longford ATS alone, it is necessary to consider whether these may become significant effects in combination with other plans or projects.

2.26 Where the plan/strategy is likely to have an effect on their own (due to impact pathways being present), but it is not likely to be significant, the in-combination assessment at Screening stage needs to determine whether there may also be the same types of effect from other plans or projects that could combine with the plan/strategy to produce a significant effect. If so, this Likely Significant Effect arising from the plan/strategy in combination with other plans or projects, would then need to be considered through the AA stage to determine if the impact pathway would have an adverse effect on integrity of the relevant European site.

2.27 Where the screening assessment has concluded that there is no impact pathway between the plan/strategy and the conditions necessary to maintain qualifying interests of a European site, then there will be no in-combination effects to assess at the Screening or AA stage.

2.28 If impact pathways are found to exist for a particular effect but it is not likely to be significant from the plan/strategy alone, the in-combination assessment will identify which other plans and programmes could result in the same impact on the same European site. This will focus on planned growth

(including housing, employment, transport, minerals and waste) around the affected site, or along the impact corridor.

2.29 The potential for in-combination impacts would therefore focus on plans prepared by planning authorities that overlap with European sites that are within the scope of this report. The findings of any associated AA work for those plans would be reviewed where available. Where relevant, any strategic projects in the area that could have in-combination effects with the plan/strategy would also be identified and reviewed.

2.30 In-combination effects must examine plans or projects that are **[See reference** 33**]**:

- Projects completed;
- Projects approved but not started or uncompleted;
- Projects proposed, i.e. for which an application for approval or consent has been made, including refusals subject to appeal and not yet determined;
- Proposals in adopted plans; and
- Proposals in finalised draft plans formally published or submitted for consultation or adoption.

2.31 Plans and projects that are not yet proposed do not generally have to be taken into account in the assessment of in-combination effects **[See reference** 34**]**, even if they are part of an overarching masterplan **[See reference** 35**]**. The need for in-combination assessment also arises at the AA stage.

Step 4: Conclusion and Screening Statement

2.32 To support the decision-making of LCC as the competent authority, a clear statement of the conclusion reached, and the basis upon which it was reached is provided in **Chapter 3**.

2.33 Screening of the plan/strategy for AA would result in the following possible conclusions or outcomes, as defined in the Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities **[See reference** 36**]**:

1. AA is not required. Screening, followed by consultation and agreement with the NPWS, establishes that either/both the Longford Town LTP and County Longford ATS are directly connected with or necessary to the nature conservation management of the potentially affected European sites.

2. No potential for significant effects/AA is not required. Screening establishes that there is no potential for significant effects and the Longford Town LTP and County Longford ATS can proceed as proposed.

3. Significant effects are certain, likely or uncertain. The Longford Town LTP and County Longford ATS must either proceed to Stage 2 (AA) or be rejected.

Stage 2: Appropriate Assessment

2.34 In undertaking an AA, there are two phases:

- A scientific evaluation of the Likely Significant Effects of the Longford Town LTP and County Longford ATS on the relevant qualifying interests of a European site; and
- A conclusion based on outcomes of the scientific evaluation whether the integrity of a European site will be compromised.

2.35 The emphasis for AA is to prove that no adverse impacts due to the plan/strategy will occur which would undermine a European site's conservation integrity.

Site integrity can be defined as “the coherence of its structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified” **[See reference** 37**]**.

2.36 The assessment also takes into account any avoidance or additional measures which will be implemented to avoid or reduce the level of impact from the plan/strategy. The competent authority may also consider the use of conditions or restrictions to help avoid Adverse Effects on Integrity (AEoI) of the European sites. This report comprises an AA Screening Assessment and, should a Stage 2: Appropriate Assessment be required, this would be provided in a Natura Impact Statement (NIS). Following the completion of the AA, the competent authority must produce an AA Conclusion Statement which identifies the potential adverse impacts of the plan/strategy on the European sites and if possible, explains how those effects will be avoided through mitigation.

2.37 If the AA concludes that there will be an adverse effect on the integrity of a European site, or that there is uncertainty and a precautionary approach is taken, then consent can only be granted if there are no alternative solutions, Imperative Reasons of Overriding Public Interest (IROPI) is applicable and compensatory measures have been secured.

Chapter 3

Stage 1: Screening

3.1 This chapter sets out the Screening for Appropriate Assessment of the Longford Town LTP and County Longford ATS.

Description of the Longford Town Local Transport Plan and County Longford Active Travel Strategy

Background and context

3.2 The Longford Town LTP and County Longford ATS sit within a hierarchy of planning policy. The Regional Spatial and Economic Strategy for the Eastern and Midlands Region (RSES) 2019-2031 **[See reference** 38**]** identified the following Regional Policy Objectives (RPOs) of relevance for Longford Town:

- RPO 4.59: To enhance accessibility and sustainable mobility within the town centre by improving links between the core and surrounding areas through the further integration of public transport, walking and cycling facilities.
- RPO 4.63: Support Longford Town as a strategic portal to the northwest and south in recognition of its location at the junction of the N55; M4/N4 Dublin/Sligo and N5; due to its proximity to the regional growth centre of Athlone; and support its role as a strategic employment centre.
- RPO 6.19: Support the local strategies that are already in place to link the River Shannon Blueway, The Royal and Grand Canal Greenways and the

proposed Barrow Blueway right across the Midlands, incorporating the towns of Longford, Athlone, Mullingar, Tullamore and Portarlington.

- RPO 8.6: Prepare a Local Transport Plan for Longford Town. Such LTPs will include transport priorities for each settlement in terms of public transport infrastructure and services; cycle investment; improvements to the pedestrian environment; and road enhancements.

3.3 The Longford County Development Plan 2021-2027 **[See reference** 39**]**, adopted in October 2021, sets out the planning policies and objectives for the sustainable development of the county.

Core Objective CPO 4.9 states that the Council will prepare and implement a Local Area Plan (LAP) for Longford Town to align with the policy objectives of the NPF, Eastern and Midlands RSES and Longford County Development Plan 2021-2027, within two years from the adoption of the Longford County Development Plan 2021-2027. Any such LAP will be informed by a LTP to be prepared for Longford Town. Accordingly, a LAP and separate LTP is to be prepared for Longford Town.

3.4 Key objectives for transport and travel in County Longford and Longford Town as set out in the Longford County Development Plan include:

- Encouraging a general shift towards increased use of public transport in the county;
- Improving transport connectivity and establishing integrated transport nodes;
- Reducing the need to travel by private vehicle;
- Encouraging and facilitating walking and cycling, putting the pedestrian first in residential and urban areas;
- Providing high quality road access on routes of economic importance whilst ensuring road safety;

- Supporting and facilitating the development of infrastructure to increase the usage of electric vehicles;
- Promoting place-making in towns and villages to improve quality of life; and
- Relieving traffic congestion particularly in town centres by means of traffic calming and traffic management.

3.5 The Longford Town LTP aims to establish a strategic framework for the future development of transport infrastructure within Longford Town and its environs. The function of the LTP is to enhance accessibility and sustainable mobility within Longford Town centre, by improving links between the core and surrounding areas through the further integration of public transport, walking and cycling facilities.

3.6 The County Longford ATS aims to establish a framework for the future development of active travel in the county in line with LCC's ambition to establish Longford as a pioneering county for active travel. The strategy presents an analysis of the current active travel context in County Longford. The opportunities and constraints associated with land use, population and transport are identified and used to inform potential solutions to improve active travel usage in the county. Unlike the Longford Town LTP, the ATS (August 2022) does not identify 'strategies' for new development of active travel infrastructure in the county.

Purpose

3.7 The purpose of the Longford Town LTP and County Longford ATS is to establish a strategic framework for the future development of transport infrastructure within Longford Town and its environs and for active travel within the county.

Geographical area covered

3.8 County Longford is the fourth smallest county in area in Ireland. It is located in the midlands of Ireland and is bordered by counties Westmeath, Cavan, Leitrim and Roscommon. Longford Town is located in the centre of the county and is the principal town of the county. The Longford Town LTP covers the town of Longford and sets a strategic framework for the future development of transport infrastructure in the town.

3.9 The County Longford ATS covers all areas within the county and sets a strategic framework for encouraging active travel across the whole of the county. The focus of the County Longford ATS will be meeting the active travel needs of the county however consideration will also be given to effects beyond the strategy area boundary in neighbouring counties (Roscommon, Leitrim, Cavan and Westmeath).

3.10 The LTP study area is located within the boundary of Longford Town whilst the ATS study area is located within the boundary of County Longford. **Figure 3.1** overleaf illustrates the geographical extent of the County Longford ATS and Longford Town LTP.

Figure 3.1: Location

Longford County
Longford Town LTP Study Area

1:5,400,000

Map scale 1:180,000 @ A3

CB:AHB EB:mcginley_m LUC FIG1_1_Location_A3L 10/02/2023
Source: Longford CC, OSM, OSi

Content

3.11 The vision for the Longford Town LTP (July 2023) is "**to ensure that Longford is an attractive place to live, work and visit through the appropriate integration of transport and land use, with a primary focus on ease of access for all by sustainable transport"** (p. 48).

3.12 The Vision for the LTP is supported by nine principles and eight objectives that guide the strategies set out the in document. The principles of the Longford Town LTP are:

- **Integrated transport planning, land use, and urban design**: Adopt an approach where transport decisions are also focused on enhancing the image, liveability, safety and cohesion of Longford.
- **People first:** Prioritise pedestrians, cyclists and public transport before private vehicles to create a balanced transport system and great places.
- **Maintaining and enhancing connectivity:** Maintain and enhance the capacity of the strategic rail, road and bus network, where possible.
- **Safe streets**: Ensure streets are safe for all users by reducing speeds, providing safe crossings and dedicated infrastructure.
- **Value for money:** Ensure proposals are assessed on their cost and ease of implementation in order to prioritise best value for money.
- **Vibrant and great for business**: Design streets to enhance businesses in Longford and maximise street life both day and night.
- **Efficient:** Reallocate street space as efficiently as possible to optimise other functions such as cycling, public transport, footpaths, outdoor dining and furniture.
- **Future focused and equitable:** Design streets which are flexible and adaptive to change and able to accommodate all ages, abilities, genders and incomes.

- **Evidence-based decision making**: Address traffic issues by reducing unnecessary trips and improving the attraction of alternative modes.

Guided by the principles above, the LTP identifies eight objectives to form an integrated strategy for the town that promotes positive outcomes from a movement and place perspective.

- Permeability: Improve permeability between neighbourhoods, enhancing attractiveness and promoting connectivity.
- Active travel: Improve walking and cycling connections and routes to increase physical activity.
- Public transport: Encourage the use of public transport and reduce the environmental impact of transportation.
- Integration of land use and transport: Integration of existing and future land use and transport networks.
- Parking: Utilise existing on-street parking zones along certain streets to improve the public realm, support travel by sustainable modes and provide other functions such as wider footpaths, cycle parking, outdoor dining areas, new trees/planting, etc.
- Safety: Improve and enhance safety for all, especially for vulnerable road users.
- Traffic management: Reduce through traffic through interventions.
- Feasibility and value for money: Provide good value for money.

3.13 Based on the Vision, principles and objectives above, the Draft Longford Town LTP sets out a number of focused transport strategies that provide detail about proposed interventions. These include strategies for walking, cycling, permeability, public transport, traffic management, car parking, feasibility and value for money, and an access strategy for Abbeycarton. The LTP also sets out maps of proposed schemes in relation to each of the transport strategies, an

assessment of the proposed schemes, and a plan for implementation of the LTP.

3.14 The ATS establishes the framework for active travel within the county. This iteration of the strategy (August 2022) comprises four main sections:

- Chapter 1: Introduction – Provides an introduction to the purpose of the study and background.
- Chapter 2: Policy Content – Outlines relevant national, regional and local policy and plans.
- Chapter 3: Baseline Assessment – Provides details of the baseline assessment, including land use context, population and employment, environmental context and transport context.
- Chapter 4: Opportunities and Constraints – Outlines opportunities and constraints for future development in relation to active transport.

Stage

3.15 Arup is currently preparing the Draft Longford Town LTP on behalf of Longford County Council. It is anticipated that the Draft LTP will be published for public consultation by the Council in July 2023. The submissions and observations received during the public consultation period will be reviewed and considered by the Council during the finalisation of the LTP. Depending on the scale and nature of changes to the Draft LTP, a revised version of the LTP may be published for public consultation. It is expected that the LTP will be adopted in autumn 2023.

Identification of relevant European Sites

3.16 Table 3.1 identifies the European sites within the 15km ZoI for the County Longford ATS and Longford Town LTP. Note there are no cSACs, or proposed

SPAs within the ZoI. A map of the study areas and the relevant European sites is provided in **Appendix A**.

Table 3.1: European sites identified within the Zone of Impact

European Site	Site Code	Closest Distance/Location from Longford Town LTP Area	Closest Distance/Location from County Longford ATS Area
Ballykenny-Fisherstown Bog SPA	004101	3km	Within the study area
Glen Lough SPA	004045	14km	Within the study area
Lough Ree SPA	004064	12km	Within the study area
Lough Kinale and Derragh Lough SPA	004061	Beyond 15km ZOI	Within the study area
Lough Sheelin SPA	004065	Beyond 15km ZOI	1.5km
Garriskil Bog SPA	004102	Beyond 15km ZOI	3.9km
Lough Iron SPA	004046	Beyond 15km ZOI	3.9km
Lough Derravaragh SPA	004043	Beyond 15km ZOI	6.3km
Lough Owel SPA	004047	Beyond 15km ZOI	8.5km
Lough Oughter SPA	004049	Beyond 15km ZOI	9km
Middle Shannon Callows SPA	004096	Beyond 15km ZOI	11.5km
Lough Croan Turlough SPA	004139	Beyond 15km ZOI	13.2km
River Suck Callows SPA	004097	Beyond 15km ZOI	14.6km

European Site	Site Code	Closest Distance/Location from Longford Town LTP Area	Closest Distance/Location from County Longford ATS Area
Brown Bog SAC	002346	2km	Within the study area
Mount Jessop Bog SAC	002202	2.9km	Within the study area
Lough Forbes Complex SAC	001818	3.4km	Within the study area
Clooneen Bog SAC	002348	7.4km	Within the study area
Lough Ree SAC	000448	12km	Within the study area
Fortwilliam Turlough SAC	000448	14km	Within the study area
Argagullion Bog SAC	002341	15km	Within the study area
Derragh Bog SAC	002201	Beyond 15km ZOI	Within the study area
Moneybeg and Clareisland Bogs SAC	002340	Beyond 15km ZOI	1.1km
Corbo Bog SAC	002349	Beyond 15km ZOI	3.2km
Garriskil Bog SAC	004102	Beyond 15km ZOI	3.9km
Ballymore Fen SAC	002313	Beyond 15km ZOI	4km
Lough Oughter and Associated Loughs SAC	000007	Beyond 15km ZOI	6.6km
Lough Funshinagh SAC	000611	Beyond 15km ZOI	7.7km
Lough Owel SAC	000688	Beyond 15km ZOI	8.5km
White Lough, Ben Loughs and Lough Doo SAC	001810	Beyond 15km ZOI	10.5km

European Site	Site Code	Closest Distance/Location from Longford Town LTP Area	Closest Distance/Location from County Longford ATS Area
Lough Lene SAC	002121	Beyond 15km ZOI	11.1km
River Shannon Callows SAC	000216	Beyond 15km ZOI	11.5km
Ballynamona Bog and Corkip Lough SAC	002339	Beyond 15km ZOI	11.6km
Carn Park Bog SAC	002336	Beyond 15km ZOI	11.6km
Ballinturly Turlough SAC	000588	Beyond 15km ZOI	12.5km
Crosswood Bog SAC	002337	Beyond 15km ZOI	12.8km
Scragh Bog SAC	000692	Beyond 15km ZOI	13.1km
Lough Croan Turlough SAC	000610	Beyond 15km ZOI	13.2km
Lough Bane and Lough Glass SAC	002120	Beyond 15km ZOI	13.2km
Annaghmore Lough (Roscommon) SAC	001626	Beyond 15km ZOI	13.2km
Castlesampson Esker SAC	001625	Beyond 15km ZOI	13.5km
Lisduff Turlough SAC	000609	Beyond 15km ZOI	14.7km
Lough Derravaragh Ramsar	847	Beyond 15km ZOI	8.2km
Lough Owel Ramsar	851	Beyond 15km ZOI	12.2km
Lough Iron Ramsar	850	Beyond 15km ZOI	14.7km

Qualifying Interests of the European Sites

3.17 Appendix C characterises in detail each of the qualifying interests and conservation objectives of the European sites in context of each of the sites' vulnerabilities. However, a synopsis of the qualifying interests for the relevant European sites is provided in the following sections.

Ballykenny-Fisherstown Bog SPA

- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

Glen Lough SPA

- Whooper Swan; *Cygnus cygnus* [A038]

Lough Ree SPA

- Little Grebe; *Tachybaptus ruficollis* [A004]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Teal; *Anas crecca* [A052]
- Mallard; *Anas platyrhynchos* [A053]
- Shoveler; *Anas clypeata* [A056]
- Tufted Duck; *Aythya fuligula* [A061]
- Common Scoter; *Melanitta nigra* [A065]
- Goldeneye; *Bucephala clangula* [A067]
- Coot; *Fulica atra* [A125]

- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Common Tern; *Sterna hirundo* [A193]
- Wetland and Waterbirds [A999]

Lough Kinale and Derragh Lough SPA

- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Wetland and Waterbirds [A999]

Lough Sheelin SPA

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Goldeneye; *Bucephala clangula* [A067]
- Wetland and Waterbirds [A999]

Garriskil Bog SPA

- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

Lough Iron SPA

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Teal; *Anas crecca* [A052]

- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

Lough Derravaragh SPA

- Whooper Swan; *Cygnus cygnus* [A038]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Coot; *Fulica atra* [A125]
- Wetland and Waterbirds [A999]

Lough Owel SPA

- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]
- Wetland and Waterbirds [A999]

Lough Oughter SPA

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Wetland and Waterbirds [A999]

Middle Shannon Callows SPA

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Corncrake; *Crex crex* [A122]
- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Black-tailed Godwit; *Limosa limosa* [A156]
- Black-headed Gull; *Chroicocephalus ridibundus* [A179]
- Wetland and Waterbirds [A999]

Lough Croan Turlough SPA

- Shoveler; *Anas clypeata* [A056]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

River Suck Callows SPA

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

Brown Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Mount Jessop Bog SAC

- Degraded raised bogs still capable of natural regeneration [7120]
- Bog woodland [91D0]

Lough Forbes Complex SAC

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion Incanae, Salicion albae) [91E0]

Clooneen Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Bog woodland [91D0]

Lough Ree SAC

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]
- Semi-natural grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites) [6210]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Alkaline fens [7230]
- Limestone pavements [8240]
- Bog woodland [91D0]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion Incanae, Salicion albae) [91E0]
- Otter; *Lutra lutra* [1355]

Fortwilliam Turlough SAC

- Turloughs [3180]

Argagullion Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Derragh Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Moneybeg and Clareisland Bogs SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Corbo Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Garriskil Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Ballymore Fen SAC

- Transition mires and quaking bogs [7140]

Lough Oughter and Associated Loughs SAC

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]
- Bog woodland [91D0]
- Otter; *Lutra lutra* [1355]

Lough Funshinagh SAC

- Turloughs [3180]
- Rivers with muddy banks with Chenopodion rubric p.p. and Bidention p.p. vegetation [3270]

Lough Owel SAC

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- Transition mires and quaking bogs [7140]
- Alkaline fens [7230]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

White Lough, Ben Loughs and Lough Doo SAC

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Lough Lene SAC

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

River Shannon Callows SAC

- Molina meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]

- Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510]
- Alkaline fens [7230]
- Limestone pavements [8240]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion Incanae, Salicion albae) [91E0]
- Otter; *Lutra lutra* [1355]

Ballynamona Bog and Corkip Lough SAC

- Turloughs [3180]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Bog woodland [91D0]

Carn Park Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Ballinturly Turlough SAC

- Turloughs [3180]

Crosswood Bog SAC

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Scragh Bog SAC

- Transition mires and quaking bogs [7140]
- Alkaline fens [7230]
- Slender Green Feather-moss; *Hamatocaulis vernicosus* [6216]

Lough Croan Turlough SAC

- Turloughs [3180]

Lough Bane and Lough Glass SAC

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Annaghmore Lough (Roscommon) SAC

- Alkaline fens [7230]
- Geyer's Whorl Snail; *Vertigo geyeri* [1013]

Castlesampson Esker SAC

- Turloughs [3180]
- Semi-natural grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites) [6210]

Lisduff Turlough SAC

- Turloughs [3180]

Lough Derravaragh Ramsar Site

- Pochard; *Aythya farina*
- Tufted Duck; *Aythya fuligula*
- Coot; *Fulica atra*
- Mute Swan; *Cygnus olor*
- Otter; *Lutra lutra*

Lough Owel Ramsar Site

- Spring-fed calcareous lake
- Rare plant species
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Scharff's Char; *Savelinus scharffi*

Lough Iron Ramsar Site

- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Whooper Swan; *Cygnus cygnus* [A038]
- Rare plant species

Conservation Objectives of the European Sites

3.18 The overall aims of the Habitats Directive and Birds Directive are to maintain or restore the favourable conservation status of habitats and species of community interest:

- For SACs, to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been designated; and
- For SPAs, to maintain or restore the favourable conservation condition of the bird species listed in Annex I, for which the SPA has been designated.

3.19 According to the Habitats Directive, the conservation status of a natural habitat will be taken as 'favourable' within its biogeographic range when:

- Its natural range and areas it covers within that range are stable or increasing;
- The specific structure and functions which 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 as defined below.

3.20 According to the Habitats Directive, the conservation status of a species means the sum of the impacts acting on the species concerned that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' within its biogeographic range when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

3.21 The specific conservation objectives for each European site were derived from the NPWS website and were consulted on and reviewed at the time of preparing this report in July 2023.

3.22 Generic conservation objectives apply to all European sites.

3.23 Where available, site-specific conservation objectives designed to define favourable conservation status for a particular habitat or species at that site have been considered. Site-specific/more detailed conservation objectives were available for the following sites:

- Lough Ree SPA
- Lough Oughter SPA
- Lough Kinale and Derragh Lough SPA
- Middle Shannon Callows SPA
- Lough Derravarragh SPA
- Lough Iron SPA
- Lough Owel SPA
- Lough Croan Turlough SPA
- River Suck Callows SPA
- Ballymore Fen SAC
- Brown Bog SAC
- Lough Forbes Complex SAC
- Clooneen Bog SAC
- Fortwilliam Turlough SAC
- Lough Ree SAC
- Ardagullion Bog SAC
- Moneybeg and Clareisland Bogs SAC
- Scragh Bog SAC
- Corbo Bog SAC
- Garriskil Bog SAC

- Lough Oughter And Associated Loughs SAC
- Lough Funshinagh SAC
- Lough Owel SAC
- White Lough, Ben Loughs and Lough Doo SAC
- River Shannon Callows SAC
- Ballynamona Bog and Corkip Lough SAC
- Carn Park Bog SAC
- Crosswood Bog SAC
- Lough Croan Turlough SAC
- Annaghmore Lough (Roscommon) SAC
- Castlesampson Esker SAC
- Lisduff Turlough SAC
- Lough Lene SAC
- Ballinturly Turlough SAC

3.24 Management plans were not available for any of the sites.

Screening assessment of Likely Significant Effects

AA Screening of provisions of the Longford Town LTP and County Longford ATS

3.25 A review of the Longford Town LTP and County Longford ATS confirmed that the main purpose of the plan/strategy is to provide frameworks for future

development of transport infrastructure within Longford Town and for active travel in the county. The County Longford ATS and Longford Town LTP be used as strategic frameworks to deliver solutions to improve the transport network and active travel usage in the county.

3.26 There are no policies within either the County Longford ATS and Longford Town LTP, which directly result in development. However, the strategies and associated schemes within the Longford Town LTP propose a number of new and / or improved infrastructure within Longford Town. This will then inform a joint Local Area Plan. The schemes include:

Pedestrian / walking schemes

- New footpath on Viewmount.
- New footpath on Connaught Road.
- New footpath on Little Water Street.
- New footpath on R198 (from Church to Cinema).
- New footpath on R198 Cloonbalt.
- New footpath on Lisbrack Road.
- New footpath on Abbeycarton Lane.
- Footpath improvements at Longford Industrial Estate.
- Improvements to pedestrian footbridge at train station.
- Improvements to Garvey's Close pedestrian access.
- Improvements to Bog Lane pedestrian access.
- Widening of footpaths on Geraldines Terrace.
- Improvements to Grafton Court pedestrian access.
- Footpath improvements at N4 Cloonbalt/Lisnamuck.
- Footpath improvements at Teffia Park.

- Footpath improvements at Athlone Road.
- Footpath improvements at N63 Templemichael Estate.
- Footpath improvements at N4 Axis Centre / Battery Road.
- New footpath on Demense Lane.
- Footpath improvements at Deanscurragh.
- Footpath improvements at New Street.
- Improvements to crossing facilities at 30 locations.

Cycle schemes

- Main St Cycle Route (From Bridge Street to Train Station).
- The Mall (from Little Water Street via the Mall and connection Ballinalee Road via new bridge crossing).
- N63 (from Templemichael Terrace to Main Street).
- Battery Road (R198).
- Dublin Road.
- Battery Road to Balinalee Road Connector.
- Park Road (From Train Station to Farnagh Hill).
- Ardnacassa/Oaklands Avenue Connector.
- N63 (Longford Industrial estate to Main Street).
- Glenn Riada Cycling Connection.
- Great Water Street / St. Mel's Road.
- Demesne Lane / Battery Court / Little Water Street new connection and bridge.
- N63 (from Templemichael Terrace to N4 roundabout).
- Connaught Road (N5).

- Park Rd / Prospect Woods.
- Templemichael Terrace.
- Abbeycartron Lane.
- Templemichael Cycleway.
- St. Joseph's Road to Dublin Road (via Convent/Bus depot).
- Ardnacassa.
- R198 Cloonbalt.
- N4 Parallel Route (southern side).
- Lisbrack Road.
- River Camlin East Bank Route (to N4).

Quiet street schemes

- St. Michael's Road (between N5 and N63).
- Amaly Park (between N5 and N63).
- College Park (between N63 and Templemichael Terrace).
- Templemichael Industrial Estate.
- Deanscurragh (between N63 and Dublin Road).
- Springlawn (between Ardnacassa Ave and Dublin Road).
- Dún Darrach (between Dublin Road and Ardnacassa).
- Royal Canal Avenue / Park Villas / Teffia Park.
- Glack / McEoin Park (between Teffia Park and Farnagh Hill).
- Mastertech Business Park to Royal Canal.

Bicycle parking schemes

- Three improved bicycle parking at Albert Reynolds Peace Park, Longford Shopping Centre (Tesco) and train station.
- 15 new bicycle parking locations in various locations around Longford Town.

Permeability schemes

- 23 walking and cycling permeability schemes in various locations around Longford Town.

Public transport schemes

- General improvements to Train Station (Including pedestrian access, and cycle parking).
- Train Station Accessibility Study (to east).
- Bus Stop upgrade programme (Across the study area).
- Bus Route & Frequency Study (in conjunction with ‘Connecting Ireland’).
- Bus stop improvements at Longford station.
- New local bus route and bus stops.

Traffic management schemes

- St Mel’s Road One-Way system.
- Longford Shopping Centre Main Street Entrance Vehicular Restriction.
- Reorganisation of Market Square/Kilashee St One-way system.
- St Michael’s Road Quiet Street / Filtered Permeability.
- Annaly Park Quiet Street / Filtered Permeability.

- College Park Quiet Street / Filtered Permeability.
- Deanscurragh Quiet Street / Filtered Permeability.
- Teffia Park Quiet Street / Filtered Permeability.

Car parking schemes

- Rationalisation of Main St and Dublin St parking (to facilitate cycle infrastructure).
- Recommend Locations for Park and Stride schemes.
- Wayfinding strategy.
- Rationalisation of On-Street Car Parking along Geraldine's Terrace.
- Improve pedestrian access to Annaly car park from Main Street.
- Change parking regime at Annaly car park to max. 2hr stay.
- Improve pedestrian access to car park (via Bog Lane) from Main Street.
- Change parking regimes at car park to max. 2hr stay.
- New one-way system at Longford Shopping centre car park.

3.27 The Likely Significant Effects of these proposed schemes has been assessed below.

In-combination assessment

3.28 Article 6(3) of the Habitats Directive requires Screening for AA where "a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives". Therefore, where likely insignificant effects are identified for the LTP or ATS alone, it is necessary to consider whether these may become significant effects in combination with other plans or projects.

3.29 The screening assessment has concluded that there are no impact pathways between the County Longford ATS and Longford Town LTP, which provide a strategic framework for future development rather than directly resulting in development, and therefore there is no mechanism by which a non-effect could interact to create an in-combination effect.

AA Screening of impacts

3.30 For some types of impacts, screening for Likely Significant Effects was determined on a proximity basis, using GIS data to determine the distance of potential development locations to the European sites that were the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, during the Screening stage a number of assumptions were applied in relation to assessing the Likely Significant Effects on European sites that may result from the plan. These are described, where relevant, in the following paragraphs.

Physical damage/loss (onsite)

3.31 Any development resulting from the County Longford ATS and Longford Town LTP would take place within the boundary of Longford Town for the LTP and Longford County for the ATS; therefore, only European sites within the boundary of the respective study areas could be affected through physical damage or loss of habitat from within the site boundaries.

3.32 For the LTP, no European sites were identified within the boundary of Longford Town and therefore, impacts from onsite physical damage and loss from plan can be screened from the assessment.

3.33 For the ATS, the following European sites were identified within the boundary of County Longford:

- Ballykenny-Fisherstown Bog SPA
- Glen Lough SPA
- Lough Ree SPA
- Lough Kinale and Derragh Lough SPA
- Argagullion Bog SAC
- Brown Bog SAC
- Clooneen Bog SAC
- Derragh Bog SAC
- Fortwilliam Turlough SAC
- Lough Forbes Complex SAC
- Lough Ree SAC
- Mount Jessop Bog SAC

3.34 Therefore, these European sites have the potential to be affected by physical damage and/or loss. All other Europeans sites were screened out of the assessment as they are not within the study area of the ATS and as such are not considered to experience onsite physical damage/loss.

3.35 The County Longford ATS does not identify 'strategies' for new development of active travel infrastructure and as such Likely Significant Effects as a result of onsite physical damage and loss can be ruled out.

On the above basis, no Likely Significant Effect is predicted to occur in relation to physical damage/loss (onsite) from the County Longford ATS and the Longford Town LTP and can therefore be screened out from further assessment.

Loss of functionally linked habitat

3.36 Habitat loss from development in areas outside of the European site boundaries may result in Likely Significant Effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. This includes land that may provide offsite movement corridors or foraging and sheltering habitat for mobile species such as birds, bats and fish. European sites susceptible to the indirect effects of habitat loss are restricted to those sites with qualifying species that rely on offsite habitat. These were identified as:

- Ballykenny-Fisherstown Bog SPA
- Glen Lough SPA
- Lough Ree SPA
- Lough Kinale and Derragh Lough SPA*
- Lough Sheelin SPA*
- Garriskil Bog SPA*
- Lough Iron SPA*
- Lough Derravaragh SPA*
- Lough Oughter SPA*
- Middle Shannon Callows SPA*
- Lough Croan Turlough SPA*
- River Suck Callows SPA*
- Lough Ree SAC
- Lough Oughter And Associated Loughs SAC*
- River Shannon Callows SAC*
- Lough Derravaragh Ramsar site*
- Lough Owel Ramsar site*

- Lough Iron Ramsar*

* These sites are located over 15km from the LTP study area so impacts are only considered in relation to the ATS for these designated sites.

3.37 A recognised distance for the consideration of offsite functionally linked land in relation to birds is generally 2km, but for certain species, including most notably, golden plover and lapwing, a greater distance of 15km may be appropriate. Based on these distances, the following European sites were able to be screened from the assessment for Ballykenny-Fisherstown Bog SPA and Glen Lough SPA in relation to the LTP and Garriskil Bog SPA, Lough Derravaragh SPA and Lough Oughter SPA in relation to the ATS.

3.38 Lough Owel SAC, White Lough, Ben Loughs and Lough Doo SAC and Lough Lene SAC, which are located within 15km of the ATS study area only, were identified to support white clawed crayfish. This species inhabits small freshwater streams of a depth less than 1 metre and as such are not considered to travel large distances. Given the distance of these sites from the ATS study area at 8.45km, 10.45km and 11.09km respectively, no impacts are predicted from impacts arising from the ATS as a result of loss of functionally linked land and are therefore screened from further assessment.

3.39 All other European sites were screened out of the assessment as they do not support qualifying interests that are reliant on offsite functionally linked habitat.

3.40 The County Longford ATS and Longford Town LTP set strategic frameworks for the future development of transport infrastructure and do not directly result in development. The Longford Town LTP proposes schemes that will inform the joint Local Area Plan but will not directly result in development.

On the above basis, no Likely Significant Effect is predicted to occur in relation to loss of offsite functional land from the County Longford ATS and

Longford Town LTP and can therefore be screened out from further assessment.

Non-physical disturbance (noise, light, vibration)

3.41 Noise and vibration effects are most likely to disturb bird species and thus are a key consideration with respect to potential effects on European sites where birds are the qualifying interests. Artificial lighting at night has the potential to affect species where it occurs in close proximity to key habitat areas, such as key roosting sites of SPA birds or SAC bats.

3.42 It has been assumed that the effects of noise, vibration and light are most likely to be significant within a distance of 500m from the source. There is also evidence of 300m being used as a distance up to which certain bird species can be disturbed by the effects of noise; however, it has been assumed (on a precautionary basis) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500m of a European site with qualifying interests sensitive to these disturbances.

3.43 No European sites were located within 500m of the LTP study area and therefore no Likely Significant Effect are predicted in relation non-physical disturbance.

3.44 In relation to the ATS, all European sites, with the exception of the Ballykenny-Fisherstown Bog SPA, Glen Lough SPA, Lough Ree SPA and Lough Kinale and Derragh Lough SPA, were screened out of the assessment as they are not within 500m of the study area.

3.45 All other European sites were screened out of the assessment as they do not support qualifying interests that will be affected by impacts from non-physical disturbance.

3.46 The County Longford ATS will set a strategic framework for future development of active travel and does not itself directly result in development. As such Likely Significant Effects as a result of onsite physical damage and loss can be ruled out.

On the above basis, no Likely Significant Effect is predicted to occur in relation to non-physical disturbance from the County Longford ATS and Longford Town LTP and can therefore be screened out from further assessment.

Air pollution

3.47 In relation to the HRA, air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can affect plant health, productivity and species composition.

3.48 In terms of the potential effects of air pollution from vehicle traffic on European sites, nitrogen oxides (NOx, i.e. NO and NO2) are considered to be key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and Nox can cause eutrophication of soils and water.

3.49 The UK Highways Agency's Design Manual for Road and Bridges (DMRB) document LA 105 Air quality **[See reference** 40**]** sets out the requirements for assessing and reporting the effects of highway projects on air quality. Paragraph 2.25 of this document provides guidance on selecting sensitive, designated habitat receptors. The National Roads Authority (NRA) DMRB **[See reference** 41**]** is based on the UK DMRB and is adapted for use to set out a standard of good practice on national roads in Ireland. Based on the guidance

set out in the UK DMRB, it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

3.50 The DMRB document LA 105 Air quality (paragraph 2.1) also provides criteria that should be applied at the Screening stage of an assessment of a plan or project to ascertain whether there the potential exists for significant air quality impacts associated with routes or corridors. Based on the DMRB guidance, roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- There will be a change in speed band (speed banding of traffic modelled speeds for use with air quality assessments); or
- Road alignment will change by 5m or more.

3.51 As the guidance for Ireland is based on the UK DMRB, it was considered appropriate to consider the impacts of air quality based on the criteria set out above. This is supported by NRA Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes **[See reference** 42**]**. Although, it should be noted that this guidance was developed in 2011 and further developments have been made to the UK DMRB since. Therefore, the assessment is based on the latest guidance provided by UK DMRB.

3.52 The following European sites are located within 200m of a strategic road:

- Ballykenny-Fisherstown Bog SPA (N4, N5)
- Clooneen Bog SAC (N4)
- Lough Forbes Complex SAC (N4, N5)

- Brown Bog SAC (N5)
- Lough Ree SAC, SPA (N63, N6)
- Corbo Bog SAC (N63)
- Lough Owel SAC, SPA and Ramsar site (N4)
- Lough Oughter and Associated Loughs SAC (N3)
- Ballinturly Turlough SAC (N63)
- River Suck Callows SPA (N63)
- Crosswood Bog SAC (N6)

3.53 The County Longford ATS is seeking to improve the transport network and to encourage active travel within Longford County. The Longford Town LTP contains strategies which include a number of proposed schemes: pedestrian schemes; cycle schemes; quiet streets; bicycle parking schemes; permeability schemes; public transport schemes; traffic management schemes; and, car parking schemes within Longford Town, thus reducing the levels of air pollution and nitrogen oxides by encouraging the use of more sustainable and active modes of transport. However, traffic management schemes and car parking schemes are proposed through the Longford LTP which could result in increased use of the N4, N5, N6 and N63. This has the potential to increase levels of nitrogen oxides, impacting European sites that are located within 200m of one of these strategic roads. This is unlikely to be significant as improvements are proposed to more sustainable forms of transport providing more options to travel when using strategic roads.

3.54 The Longford Town LTP and ATS are strategic frameworks for the future development of transport infrastructure and as such will not directly result in development. The proposed schemes identified in the LTP will inform the joint Local Area Plan but will not directly result in development. Therefore, impacts from air pollution as a result of development in the County Longford ATS and Longford Town LTP can be ruled out. As such Likely Significant Effects as a result of air pollution can be ruled out.

On the above basis, no Likely Significant Effect is predicted to occur in relation to air pollution from the County Longford ATS and Longford Town LTP and can therefore be screened out from further assessment.

Recreational pressure

3.55 Recreational activities and human presence can result in significant effects on European sites. European sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances from walking, dog walking, angling, illegal use of off-road vehicles and motorbikes, wildfowling, and water sports. In addition, recreation can physically damage habitat as a result of erosion, trampling, fire or vandalism.

3.56 The County Longford ATS and Longford Town LTP provide strategic frameworks for the future development of transport infrastructure, including active travel infrastructure. This will help to improve capacity of the transport network to address the predicted growth associated with development from the forthcoming Longford Town Local Plan and adopted Longford County Development Plan.

3.57 The County Longford ATS and Longford Town LTP may make it easier for new and existing residents of Longford Town and County Longford to access European sites through the delivery of cycle routes and transport infrastructure. In particular, the improvements to the transport network through schemes proposed within the Longford LTP will enhance access to the N5 and N63. The Brown Bog SAC and Lough Forbes Complex SAC are situated along the N5 approximately 2.1km and 3.4km, respectively, from Longford Town boundary. Mount Jessop Bog SAC is in close proximity to the N63, 2.9km from Longford LTP boundary. Therefore, improvements to the transport network through the proposed schemes could increase recreational pressure in Brown Bog SAC, Lough Forbes Complex SAC and Mount Jessop Bog SAC. Lough Forbes Complex SAC is vulnerable to pressures from leisure fishing and hunting but

this is considered low. Therefore, recreational pressures associated with improvements to the transport network are unlikely to be significant.

3.58 Likely Significant Effects as a result of recreational pressure can be ruled out.as the County Longford ATS and Longford Town LTP are strategic frameworks and do not directly result in development, only proposing projects to be delivered, therefore such impacts from recreational as a result of proposed development in the plan can be ruled out.

On the above basis, no Likely Significant Effect is predicted to occur in relation to recreational pressure from the County Longford ATS and Longford Town LTP and can therefore be screened out from further assessment.

Changes in hydrology (water quality and quantity)

3.59 Changes to hydrology have the potential to negatively impact habitats and reduce prey availability for the qualifying interests of European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in Likely Significant Effects; for example, due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions.

3.60 All European sites within 15km of the County Longford ATS and Longford Town LTP were considered to support qualifying features that were considered susceptible to changes in water quantity and quality. This includes qualifying habitats, such as bogs, turlough, lakes and fens, and qualifying species, including wading birds, otter and white-clawed crayfish, which are reliant on water-based habitats for foraging, dispersal and shelter. Therefore, changes in

hydrology as a result of the plan has potential to result in a Likely Significant Effect.

3.61 The schemes proposed within the Longford LTP will not result in an increase in demand for water supply or water treatment. Additionally, as all the European Sites identified within 15km of the Longford Town LTP are located over 500m from any of the schemes proposed, impacts from surface water run-off during construction will not be an issue.

3.62 Therefore, impacts from changes in hydrology are not considered an issue in relation to the County Longford ATS and Longford Town LTP as the plan/strategy themselves do not directly result in any new development and provide strategic frameworks for future development including proposed transport projects within the Longford Town LTP. Therefore, there will be no additional demand for water abstraction and treatment.

On the above basis, no Likely Significant Effect is predicted to occur in relation to changes in hydrology from the County Longford ATS and Longford Town LTP and can therefore be screened out from further assessment.

Summary of findings of Screening Assessment

3.63 No impact pathways were identified as a result of the County Longford ATS and Longford Town LTP and as such the Screening Assessment concludes that no Likely Significant Effects are predicted on European sites as a result of either the plan or strategy. No further assessment is required at the Appropriate Assessment stage.

Chapter 4

Conclusion and next steps

4.1 This chapter sets out the conclusion of the Screening Assessment and details next steps.

Screening conclusion

4.2 An initial screening of the County Longford ATS (August 2022) and Longford Town LTP (July 2023), using the precautionary principle (without the application of mitigation measure), was undertaken to determine impact pathways between the plan/strategy and European sites identified within 15km of the study areas. The screening assessment concluded that no likely significant effects are predicted on any European site as a result of the County Longford ATS and Longford Town LTP.

Screening Statement

4.3 In line with the Screening Statements defined in the 'Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities' **[See reference** 43**]**, it is concluded that there is no potential for significant effects and therefore AA is not required.

Next steps

4.4 An AA is not required for the County Longford ATS and Longford Town LTP as the plan/strategy establishes the strategic framework for future development and as such will not directly result in the provision of development in Longford

Town and County Longford. The Longford Town LTP proposes schemes through its strategies which will inform the joint Local Area Plan and not directly result in development. Therefore, it is concluded that there will be no Likely Significant Effects and as such an AA is not required.

4.5 AA is an iterative process and, as such, is expected to be updated in light of newly available evidence and comments from key consultees, including NPWS as the statutory consultee. Given that no Likely Significant Effects were identified and an AA is not required, consultation with NPWS is not required. However, the AA Screening report will be kept on file as documentation of the AA Screening process.

Appendix A

Map of European Sites

AA of the County Longford Active Travel Strategy and Longford Town Local Area Plan
for Longford County Council

LUC

Figure A.1: European Sites

Longford Town LTP Study Area
Longford County ATS Study Area
15km buffer from the LTP Study Area
15km buffer from the ATS Study Area

European Designations

Special Area of Conservation (SAC)
Special Protected Area (SPA)
SAC and SPA
Ramsar

Lough Oughter And Associated Loughs SAC
Lough Oughter SPA
Annaghmore Lough (Roscommon) SAC
Clooneen Bog SAC
Ballykenny-Fisherstown Bog SPA
Lough Forbes Complex SAC
Brown Bog SAC
Corbo Bog SAC
Mount Jessop Bog SAC
Ardagullion Bog SAC
Lough Kinale and Derragh Lough SPA
Derragh Bog SAC
Lough Sheelin SPA
Moneybeg and Clareisland Bogs SAC
White Lough, Ben Loughs and Lough Doo SAC
Lough Bane And Lough Glass SAC
Garriskil Bog SAC
Garriskil Bog SPA
Lough Derravaragh SPA
Glen Lough SPA
Lough Iron SPA
Lough Lene SAC
Lough Derravaragh Ramsar
Lough Iron Ramsar
Lough Owel SPA
Lough Owel Ramsar
Lough Owel SAC
Scragh Bog SAC
Ballymore Fen SAC
Ballinturly Turlough SAC
Lough Ree SPA
Lisduff Turlough SAC
River Suck Callows SPA
Lough Funshinagh SAC
Lough Croan Turlough SPA
Lough Croan Turlough SAC
Fortwilliam Turlough SAC
Lough Ree SAC
Castlesampson Esker SAC
Ballynamona Bog and Corkip Lough SAC
Carn Park Bog SAC
Middle Shannon Callows SPA
Crosswood Bog SAC
15km
15km

0 5 10 km

Map scale 1:300,000 @ A3

CB:AHB EB:mcginley_m LUC FIG1_EuropeanSites_A3L 09/02/2023
Source: Longford CC, DCHG, OSM

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Appendix B

Case Law

Interpretation of 'Likely Significant Effects'

B.1 European Court of Justice 7th September 2004 by Advocate General Kokott; Case C-127/02; Waddenzee versus Secretary of State for Agriculture, Nature Conservation and Fisheries – The CJEU ruled on the interpretation of Article 6(3) of the Habitats Directive:

- An effect should be considered 'likely', if it cannot be excluded, on the basis of objective information, that it will have a significant effect on a European site.
- An effect should be considered 'significant' if it undermines the conservation objectives of a European site.
- Where a plans or projects has an effect on a site but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on a European site.

Interpretation of Direct, Indirect and In-combination Effects

B.2 European Court of Justice Opinion 22nd November 2012 by Advocate General Sharpston; Case C 258/11; Peter Sweetman and Others versus An Bord Pleanála – The CJEU ruled that in determining whether a project or plan has an adverse effect on the integrity of a site (to which Article 6(3) of the

Habitats Directive applies), an effect which is permanent or long lasting must be regarded as an adverse effect.

B.3 European Court of Justice 7th November 2018; Case C 461/17; Holohan and Others versus An Bord Pleanála – The CJEU ruled that:

- All the habitats and species for which a European site is protected must be catalogued.
- Assessment must identify and examine the implications of the proposed project for species present on the European site, including species for which the site has been listed and those for which it has not, provided those implications are liable to affect the conservation objectives of the site.
- Assessment must identify and examine the implications of the proposed project for species and habitats outside the boundaries of the European site, provided those implications are liable to affect the conservation objectives of the site.

B.4 High Court Ruling 2nd December 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 622; High Court Record No. 2020 238 JR; Highlands Residents Association and Protect East Meath Limited versus An Bord Pleanála, Ireland and The Minister For Culture Heritage and The Gaeltacht, Ireland and The Attorney General – The High Court ruled that An Bord Pleanála (the competent authority) erred in law in screening out (in the course of the Stage 1 screening exercise carried out by the competent authority) the possibility of significant effects on four European sites in relation to potential risk arising from the mobilisation of silt and pollutants from the development site in this particular Strategic Housing Development application, where the relevant application documentation (Environmental Impact Assessment Report, AA, CEMP) referenced protection of the River Boyne within the context that the proposed development site has a relatively close hydrological connection to the four relevant European sites.

Application of the 'Precautionary Principle'

B.5 European Court of Justice Judgement 11th April 2013 by the Third Chamber; Case C 258/11; Peter Sweetman and Others versus An Bord Pleanála – The CJEU ruled that Article 6(3) of the Habitats Directive must be interpreted as meaning that a project not directly linked to it is not immediately necessary for the management of a site to prejudice the integrity of that site if it is likely to prevent the preservation of the constituent characteristics of the site concerned in relation to the presence of a natural priority habitat whose purpose is to maintain gave the reason for registering that site in the list of sites of Community importance within the meaning of that directive. Therefore, the precautionary principle must be applied throughout.

Application of Mitigation/'Best Practice Measures'

B.6 European Court of Justice Judgement 12th April 2018 by the Seventh Chamber; Case C 323/17; People Over Wind and Sweetman versus Coillte Teoranta – The CJEU ruled that measures intended to avoid or reduce the harmful effects of a proposed project on a European site may no longer be taken into account by competent authorities at the Stage 1 screening stage when judging whether a proposed plans or projects is likely to have a significant effect on the integrity of a European designated site.

B.7 European Court of Justice 19th April 2018; Case C 164/17; Grace and Sweetman versus An Bord Pleanála – The CJEU ruled there is a "distinction to be drawn between protective measures forming part of a project and intended [to] avoid or reduce any direct adverse effects that may be caused by the project in order to ensure that the project does not adversely affect the integrity of the area, which are covered by Article 6(3), and measures which, in

accordance with Article 6(4), are aimed at compensating for the negative effects of the project on a protected area and cannot be taken into account in the assessment of the implications of the project". The CJEU held that it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area, that such a measure may be taken into consideration when the appropriate assessment is carried out under Article 6(3). Article 6 of the Habitats Directive must be interpreted as meaning:

> "Where it is intended to carry out a project on a site designated for the protection and conservation of certain species, of which the area suitable for providing for the needs of a protected species fluctuates over time, and the temporary or permanent effect of that project will be that some parts of the site will no longer be able to provide a suitable habitat for the species in question, the fact that the project includes measures to ensure that the part of the site that is likely to provide a suitable habitat will not be reduced and may actually be enhanced may not be taken into account for the purpose of the appropriate assessment under Article 6(3)."

B.8 High Court Ruling 2nd February 2019 by Mr. Justice Barniville; Neutral Citation [2019] IEHC 84; High Court Record No. 2017 883 JR; Kelly versus An Bord Pleanála and Anor – The High Court ruled that Sustainable Drainage Systems (SuDS) are not mitigation measures which a competent authority is precluded from considering at the Stage 1 Screening stage.

B.9 High Court Ruling 21st June 2019 by Mr. Justice Simons; Neutral Citation [2019] IEHC 450; High Court Record No. 2019 20 JR; Heather Hill Management Company clg and anor versus An Bord Pleanála and Anor – The High Court ruled that a competent authority is not entitled to rely on 'best practice measures' for the purposes of a Stage 1 screening determination where the legal test is whether measures are intended to avoid and/or reduce a potential harmful effect on a European site.

B.10 High Court Ruling 31st January 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 39; High Court Record No. 2019 33 JR; Peter Sweetman versus An Bord Pleanála, Ireland and The Attorney General – The High Court ruled that the competent authority was not entitled to take the measures described in the Construction Environmental Management Plan (CEMP) to protect the Blackwater River SAC into account in carrying out the Screening exercise in this particular solar farm development case.

Appropriate Assessment

B.11 High Court Ruling 25th July 2014 by Ms. Justice Finlay Geoghegan; Neutral Citation [2014] IEHC 400; High Court Record No. 2013 802 JR; Kelly versus An Bord Pleanála – The Hight Court ruled that for Assessment to be lawfully conducted it:

- Must identify, in the light of the best scientific knowledge in the field, all aspects of the plans or projects which can, by itself or in-combination with other plans or projects, affect a European site in the light of its conservation objectives. This requires both examination and analysis.
- Must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps. The requirement for precise and definitive findings and conclusions appears to require analysis, evaluation and decisions. Further, the reference to findings and conclusions in a scientific context requires both findings following analysis and conclusions following an evaluation each in the light of the best scientific knowledge in the field.
- May only include a determination that the proposed development will not adversely affect the integrity of any relevant European site where upon the basis of complete, precise and definitive findings and conclusions made the Board decides that no reasonable scientific doubt remains as to the absence of the identified potential effects.

B.12 High Court Ruling 25th February 2016 by Mr. Justice Barton; Neutral Citation [2016] IEHC 134; High Court Record No. 2013 450 JR; Balz and Heubach versus An Bord Pleanála – The High Court ruled that an assessment

made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, definitive and precise findings, and conclusions capable of removing all reasonable scientific doubt as to the effects of the plans or projects on a European site.

B.13 Supreme Court Ruling 17th July 2018 by Mr Justice Clarke; Neutral Citation [2018]; Supreme Court Record No. 2014/488 JR; Connelly versus An Bord Pleanála – The Supreme Court ruled with the decision of the High Court that An Bord Pleanála (ABP) had breached its obligations regarding the recording of the Screening stage, the Assessment itself and the EIA in its decision to grant planning permission for the wind farm. The Assessment was found to be invalid due to the failure of ABP to make complete, precise and specific scientific findings which justified its conclusion. The Supreme Court found that the decision by ABP nor the materials referred to in ABP's decision could be "shown to contain the sort of complete, precise and definitive findings which would underpin a conclusion that no reasonable scientific doubt remained as to the absence of any identified potential detrimental effects on a protected site having regard to its conservation objectives".

B.14 European Court of Justice 7th November 2018; Case C 461/17; Holohan and Others versus An Bord Pleanála – The CJEU ruled that:

- Where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, Assessment must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

Developer's Responsibilities

B.15 European Court of Justice 7th November 2018; Case C 461/17; Holohan and Others versus An Bord Pleanála – The CJEU ruled that:

- The competent authority may grant consent for a plans or projects that leaves the developer free to determine certain parameters relating to the

construction phase, such as the location of the construction compound and haul routes, if the competent authority is certain (i.e., no reasonable scientific doubt) that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

- Article 5(1) and (3) of, and Annex IV to, Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, must be interpreted as meaning that the developer is obliged to supply information that expressly addresses the significant effects of its project on all species identified in the statement that is supplied pursuant to those provisions.
- Article 5(3)(d) of Directive 2011/92/EU must be interpreted as meaning that the developer must supply information in relation to the environmental impact of both the chosen option and of all the main alternatives studied by the developer, together with the reasons for his choice, taking into account at least the environmental effects, even if such an alternative was rejected at an early stage.

Appendix C

Attributes of European Sites

SPAs within 15km of Local Transport Plan and Active Travel Strategy Area

Ballykenny-Fisherstown Bog SPA

C.1 Ballykenny-Fisherstown Bog SPA is located on the order between Counties Longford and Roscommon in the north-central midlands and is underlain by Carboniferous limestone. It is centred around Lough Forbes, a naturally eutrophic lake on the River Shannon system which is fed also from the north by the River Rinn. The lake has well-developed swamp vegetation and displays natural transitions to seasonally flooded grassland, marsh and raised bog. The raised bogs, known as the Ballykenny-Fisherstown complex, are separated by the Camlin River, which has further areas of callow grassland. The centre core areas of the bogs are quite wet with a good complement of bog mosses (Sphagnum spp.) and well-developed hummocks. Ballykenny Bog is unusual in that some of its margins are intact, a rare feature in the Irish midlands. Between the Camlin River and this bog, a complete transition from raised bog to callow grasslands can be seen while the interface between the bog and lake is colonised by a narrow band of deciduous woodland.

C.2 At the time this site was designated as a Special Protection Area (SPA) it was being sued by part of the Loughs Kilglass and Forbes Greenland White-fronted Goose population. The geese appear to have since abandoned the peatland sites in favour of grassland sites elsewhere. The site was regularly utilised during the 1980s and Greenland White-fronted Goose is regarded as a special conservation interested for this SPA. The last record of Greenland White-fronted Goose at this site was in 1990/91 (111 individuals). Merlin and

Red Grouse have also been recorded within the site. The lake and callow grasslands provide good habitat for a range of wintering waterfowl species though most occur in relatively low numbers: Cormorant (51), Whooper Swan (4), Wigeon (419), Teal (444), Tufted Duck (49) and Goldeneye (11) – are counts are two year mean peaks for the period 1998/99 to 1999/2000.

Qualifying Interests

- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

Conservation Objectives

C.3 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.4 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.5 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* [A395]

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Grazing;
- Nautical sports; and
- Sylviculture, forestry.

Low Rank

- Leisure fishing; and
- Hunting

Glen Lough SPA

C.6 Glen Lough is situated about 5km north-west of Lough Iron on the border of County Westmeath and County Longford. Extensive drainage in the 1960s has resulted in a dramatic drop in the water table here, with the result that there is now little open water, except during flooding in the winter months. Sedge-dominated freshwater marsh now occupies the majority of what was once open water. Plant species present include Bottle Sedge; *Carex rostrata*, Water Horsetail; *Equisetium fluviatile* and Canary Reed-grass; *Phalaris arundinacea*.

Other habitats present include reed swamp, wet and dry grassland, cutaway bog colonised by heath vegetation, scrub and wet willow (Salix spp.) woodland.

C.7 An internationally important Whooper Swan population uses the site at times. This flock (mean peak of 327 individuals for the 5 seasons 1995/96-1999/2000) also uses Lough Iron and a range of grassland feeding areas in the vicinity. At times, the site is visited by part of the internationally important Midland lakes Greenland White-fronted Goose population, although numbers are low (17). Dabbling ducks are well represented, but in relatively low numbers, and include such species as Wigeon (81), Teal (69), Mallard (46), Pintail (7) and Shoveler (23). Lapwing (189) is also found in the area (all figures are mean peaks for the 5 seasons 1995/96-1999/2000).

C.8 Whilst this site attracts a range of wintering waterfowl, the principal ornithological interest lies in the internationally important Whooper Swan population that is based in the area. Whooper Swan is of particular note as it is listed on Annex I of the E.U. Birds Directive. Greenland White-fronted Goose, nowadays an occasional visitor to the site, is also listed on Annex I of this Directive. The site provides useful habitat for Shoveler, which in Ireland is a fairly localised species. Glen Lough is a Ramsar Convention site.

Qualifying Interests

- Whooper Swan; *Cygnus cygnus* [A038]

Conservation Objectives

C.9 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;

- The specific structure and functions which 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.

C.10 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.11 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Whooper Swan; *Cygnus cygnus* [A038]

Key Vulnerabilities

High Rank

- Fertilisation.

Medium Rank

- Forest planting on open ground.

Low Rank

- None.

Lough Ree SPA

C.12 Lough Ree SPA is of high ornithological importance for both wintering and breeding birds. It supports nationally important populations of eleven wintering waterfowl species. The site has a range of breeding waterfowl species, notably nationally important populations of Common Scoter and Common Tern. Of particular note is the regular presence of three species, Whooper Swan, Golden Plover and Common Tern, which are listed on Annex I of the E.U. Birds Directive. Parts of Lough Ree SPA are Wildfowl Sanctuaries.

C.13 Lough Ree is one of the most important Midland sites for wintering waterfowl, with nationally important populations of Little Grebe (52), Whooper Swan (139), Wigeon (2,070), Teal (1,474), Mallard (1,087), Shoveler (54), Tufted Duck (1,012), Goldeneye (205), Coot (338), Golden Plover (3,058) and Lapwing (5,793) – all figures are three year mean peaks for the period 1997/98 to 1999/2000. Other species which occur in winter include Great Crested Grebe (29), Cormorant (99), Curlew (254) and Black-headed Gull (307) as well as the resident Mute Swan (85). Greenland White-fronted Goose has been recorded on occasion on the flooded margins of the site.

Qualifying Interests

- Little Grebe; *Tachybaptus ruficollis* [A004]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Teal; *Anas crecca* [A052]
- Mallard; *Anas platyrhynchos* [A053]

- Shoveler; *Anas clypeata* [A056]
- Tufted Duck; *Aythya fuligula* [A061]
- Common Scoter; *Melanitta nigra* [A065]
- Goldeneye; *Bucephala clangula* [A067]
- Coot; *Fulica atra* [A125]
- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Common Tern; *Sterna hirundo* [A193]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.14 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.15 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.16 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Little Grebe; *Tachybaptus ruficollis* [A004]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Teal; *Anas crecca* [A052]
- Mallard; *Anas platyrhynchos* [A053]
- Shoveler; *Anas clypeata* [A056]
- Tufted Duck; *Aythya fuligula* [A061]
- Common Scoter; *Melanitta nigra* [A065]
- Goldeneye; *Bucephala clangula* [A067]
- Coot; *Fulica atra* [A125]
- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Common Tern; *Sterna hirundo* [A193]
- Wetland and Waterbirds [A999]

C.17 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Ree SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Nautical sports.

Medium Rank

- Invasive non-native species;
- Fertilisation;
- Leisure fishing;
- Hunting;
- Walking, horse riding and non-motorised vehicles; and
- Grazing.

Low Rank

- Sylviculture, forestry.

SPAs within 15km of Active Travel Strategy Area Only

Lough Kinale and Derragh Lough SPA

C.18 Lough Kinale is a relatively small lake that is situated immediately downstream of Lough Sheelin, both lakes being near the top of the catchment of the Inny River, a main tributary of the River Shannon. Derragh Lough, a much smaller system, is connected to Lough Kinale and the Inny River. Lough

Kinale and Derragh Lough SPA, whilst relatively small in area, is of conservation significance for holding nationally important populations of two species, Pochard and Tufted Duck.

C.19 White-clawed Crayfish; *Austropotamobius pallipes*, a species that is listed on Annex II of the E.U. Habitats Directive, has been recorded (2009) from the waterway linking Lough Kinale and Derragh Lough.

C.20 Lough Kinale and Derragh Lough is an important site for wintering waterfowl, especially diving duck. It supports nationally important populations of two species, i.e. Pochard (951) and Tufted Duck (449) – all figures are average peaks for the 5 seasons 1995/96-1999/2000. A large population of Mute Swan (120) also uses the site. Coot (199), whilst still occurring in substantial numbers, formerly had a population of national importance. A number of other species are found, in relatively low numbers, including Great Crested Grebe (25), Mallard (130) and Goldeneye (22). Marginal grassland areas outside of the site attract feeding wildfowl and waders such as Lapwing and Golden Plover.

Qualifying Interests

- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.21 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;

- The specific structure and functions which 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.

C.22 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.23 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]

C.24 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Kinale and Derragh Lough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Fertilisation.

Medium Rank

- Leisure fishing;
- Sylviculture, forestry;
- Animal breeding; and
- Hunting.

Low Rank

- None.

Lough Sheelin SPA

C.25 Lough Sheelin is a medium to large-sized lake, located on the border of Counties Cavan, Westmeath and Meath. It is a relatively shallow alkaline lake with a maximum depth of 14m. The Inny River, a main tributary of the River Shannon, is the main outflow from the lake.

C.26 Despite variable water quality in recent decades, Lough Sheelin remains a very important site for wintering waterfowl, especially diving duck. It supports nationally important populations of four species, i.e. Great Crested Grebe (140), Pochard (546), Tufted Duck (762) and Goldeneye (224) – all figures are mean peaks for the 5 winters 1995/96-1999/2000. A number of other species occur in relatively low numbers, including Mute Swan (28), Mallard (76), Coot (24), Little Grebe (19), Cormorant (42) and Black-headed Gull (202).

C.27 Lough Sheelin is a nationally important site for four species of wintering wildfowl and is one of the main Midlands lakes sites for wintering birds.

Qualifying Interests

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Goldeneye; *Bucephala clangula* [A067]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.28 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.29 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.30 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Goldeneye; *Bucephala clangula* [A067]

C.31 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Sheelin SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Leisure fishing
- Fertilisation; and
- Animal breeding.

Medium Rank

- Sylviculture, forestry.

Low Rank

- None.

Garriskil Bog SPA

C.32 Garriskil Bog SPA, a raised bog, is located 3km west of Lough Derravaragh and 3km east of Rathowen in County Westmeath. It is bounded to

the south-east and south-west by the rivers Inny and Riffey. The bog is underlain by calcareous shales with a low permeability. A substantial area of uncut high bog remains though much of this is classified as degraded raised bog. Old cutaway bog surrounds the high bog and parts of this are dominated by Downy Birch; *Betula pubescens* scrub.

C.33 At the time this site was designated as a Special Protection Area (SPA) it was known to be utilised by part of an internationally important population of Greenland White-fronted Goose centred around the midland lakes. The geese appear to have abandoned these peatland sites in favour of grassland sites elsewhere. Greenland White-fronted Goose is regarded as a special conservation interest for this SPA.

C.34 The site is within the breeding territory of a pair of Merlin. Nesting probably occurs outside of the site boundary, with the bog being used primarily as a foraging area.

C.35 Several wader species breed within the site – Snipe (an estimated 5 pairs), Curlew (2-3 pairs) and Redshank (2 pairs). Barn Owl has been recorded hunting along the margins of the bog, while Red Grouse is considered to occur occasionally.

Qualifying Interests

- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

Conservation Objectives

C.36 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;

- The specific structure and functions which 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.

C.37 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.38 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* [A395]

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Modifying structure of inland water courses (outside).

Low Rank

- Grazing;
- Modifying structure of inland water courses (inside);
- Railway lines, TGV;
- Forest planting on open ground;
- Fire and fire suppression; and
- Restructuring agricultural land holding.

Lough Iron SPA

C.39 Lough Iron is a small to moderately sized midland lake, located some 12km north-west of Mullingar. It is situated on the Inny River, which flows from Lough Derravaragh approximately 5km to the north-east. Lough Owel occurs a few kilometres to the south-east and is connected to Lough Iron by a small stream. The underlying geology is limestone and the lake is mesotrophic in character.

C.40 Lough Iron SPA is of high ornithological importance, primarily for supporting internationally important populations of Whooper Swan and Greenland White-fronted Goose. The site also holds a notable diversity of other waterfowl, including dabbling duck, diving duck and waders. It is of note that three of the species which regularly occur, Greenland White-fronted Goose, Whooper Swan and Golden Plover, are listed on Annex I of the E.U. Birds Directive. Lough Iron is a Ramsar Convention site and a Wildfowl Sanctuary.

Qualifying Interests

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]

- Teal; *Anas crecca* [A052]
- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.41 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.42 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.43 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Teal; *Anas crecca* [A052]
- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

C.44 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Iron SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Sylviculture, forestry (inside); and
- Fertilisation (outside).

Medium Rank

- Grazing;
- Fertilisation (inside); and
- Sylviculture, forestry (outside).

Low Rank

- None.

Lough Derravaragh SPA

C.45 Lough Derravaragh is located approximately 12km north of Mullingar town in County Westmeath. It is a medium to large sized lake of relatively shallow water (maximum depth 23m). The lake extends along a south-east/north-west axis for approximately 8km. The Inny River, a tributary of the River Shannon, is the main inflowing and outflowing river. It is a typical limestone lake with water of high hardness and alkaline pH, and is classified as a mesotrophic system.

C.46 Lough Derravaragh is of major ornithological importance as it regularly supports nationally important populations of four species, and at times is used by the internationally important population of Greenland White-fronted Goose which is based in the region. Also of note is that three of the species which occur at the site, Greenland White-fronted Goose, Whooper Swan and Golden Plover, are listed on Annex I of the E.U. Birds Directive. Lough Derravaragh is a Ramsar Convention site.

Qualifying Interests

- Whooper Swan; *Cygnus cygnus* [A038]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Coot; *Fulica atra* [A125]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.47 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;

- The specific structure and functions which 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.

C.48 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.49 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Whooper Swan; *Cygnus cygnus* [A038]
- Pochard; *Aythya farina* [A059]
- Tufted Duck; *Aythya fuligula* [A061]
- Coot; *Fulica atra* [A125]

C.50 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Derravarragh SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Animal breeding; and

- Fertilisation.

Medium Rank

- Leisure fishing;
- Sylviculture, forestry; and
- Professional passive fishing.

Low Rank

- None.

Lough Owel SPA

C.51 Overlying Carboniferous limestone, Lough Owel is one of the most important examples of a limestone lake in the Midlands. Lough Owel is one of the most important fishing lakes in the Midlands and is especially good for Trout. The lake also holds an important population of White-clawed Crayfish; *Austropotamobius pallipes*, a species that is listed on Annex II of the E.U. Habitats Directive.

C.52 Lough Owel supports nationally important populations of two species, Shoveler and Coot. It is also notable as it is used as a roost site on occasion by the internationally important Midlands Greenland White-fronted Goose flock. Greenland White-fronted Goose is listed on Annex I of the E.U. Birds Directive. Lough Owel is a Ramsar Convention site.

Qualifying Interests

- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]

- Wetland and Waterbirds [A999]

Conservation Objectives

C.53 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.54 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.55 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Shoveler; *Anas clypeata* [A056]
- Coot; *Fulica atra* [A125]

C.56 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Owel SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Leisure fishing;
- Sylviculture, forestry; and
- Fertilisation.

Low Rank

- Hunting; and
- Human included changes in hydraulic conditions.

Lough Oughter SPA

C.57 Lough Oughter and its associated loughs occupy much of the lowland drumlin belt in north and central County Cavan between Belturbet, Killashandra and Cavan town. This area comprises a maze of waterways, islands, small lakes and peninsulas. Lough Oughter, the largest lake in the site, is relatively shallow (maximum depth of 10m) and considered to be a naturally eutrophic system.

C.58 The Lough Oughter Complex SPA is of ornithological importance for its wintering waterbird populations. Of particular note is the internationally important population of Whooper Swan that is based in the area. The site also supports nationally important populations of a further two wintering species. Two of the species which occur regularly are listed on Annex I of the E.U. Birds

Directive, i.e. Whooper Swan and Greenland White-fronted Goose. Lough Oughter is a Ramsar Convention site and a Wildfowl Sanctuary.

Qualifying Interests

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.59 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.60 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.61 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Great Crested Grebe; *Podiceps cristatus* [A005]
- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]

C.62 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Oughter SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- Fertilisation; and
- Animal breeding.

Medium Rank

- Leisure fishing;
- Sylviculture, forestry;
- Hunting; and
- Nautical sports.

Low Rank

- None.

Middle Shannon Callows SPA

C.63 The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50km from the town of Athlone to the town of Portumna; it lies within Counties Galway, Roscommon, Westmeath, Offaly and Tipperary. The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. The callows are mainly too soft for intensive farming but are used for hay or silage or for summer grazing.

C.64 A good variety of other bird species are attracted to the site. Birds of prey, including scarce species such as Merlin and wintering Hen Harrier have been recorded hunting over the callows. A range of passerine species associated with grassland and swamp vegetation breed, including Sedge Warbler, Grasshopper Warbler, Skylark and Reed Bunting. Kingfisher is also known to occur within the site. Whinchat, an uncommon breeding species, occurs in small numbers.

C.65 The Middle Shannon Callows SPA is an internationally important site that supports an assemblage of over 20,000 wintering waterbirds. It holds internationally important populations of two species – Whooper Swan and Black-tailed Godwit. In addition, there are four species that have wintering populations of national importance. The site also supports a nationally important breeding population of Corncrake. Of particular note is that several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Corncrake and Golden Plover.

Qualifying Interests

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Corncrake; *Crex crex* [A122]

- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Black-tailed Godwit; *Limosa limosa* [A156]
- Black-headed Gull; *Chroicocephalus ridibundus* [A179]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.66 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.67 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of whooper swan in Middle Shannon Callows SPA;

- To restore the favourable conservation condition of wigeon in Middle Shannon Callows SPA;
- The status of corncrake as a Species of Conservation Interest for the Middle Shannon Callows SPA is currently under review. The outcome of this review will determine whether a site-specific conservation objective is set for this species.
- To maintain the favourable conservation condition of golden plover in Middle Shannon Callows SPA;
- To restore the favourable conservation condition of lapwing in Middle Shannon Callows SPA;
- To restore the favourable conservation condition of black-tailed godwit in Middle Shannon Callows SPA;
- To restore the favourable conservation condition of black-headed gull in Middle Shannon Callows SPA; and
- To maintain the favourable conservation condition of wetlands in Middle Shannon Callows SPA.

Key Vulnerabilities

High Rank

- Abandonment/lack of mowing;
- Abandonment of pastoral systems, lack of grazing;
- Use of biocides, hormones and chemicals; and
- Flooding.

Medium Rank

- Intensive grazing;

- Fertilisation;
- Forestry clearance;
- Modifying structures of inland watercourses;
- Siltation rate changes, dumping, depositing of dredged deposits; and
- Predation.

Low Rank

- Non-intensive mixed animal grazing;
- Removal of hedges and copses or scrub;
- Grazing in forests/woodland;
- Mechanical removal of peat;
- Paths, tracks, cycling tracks;
- Hunting;
- Outdoor sports and leisure activities, recreational activities;
- Trampling, overuse;
- Landfill, land reclamation and drying out, general; and
- Modification of hydrographic functioning, general.

Lough Croan Turlough SPA

C.68 Situated approximately 6km east of the River Suck in County Roscommon, Lough Croan Turlough is a linear wetland, aligned north-west/south-east, which lies in a flattish area of glacial till. It is split into two main parts – the east functions as a typical turlough, with a wet, reedy centre, while the west is a fen, floating in places, which also floods in winter.

C.69 Lough Croan is also a site for breeding birds – Pochard and Shoveler, which are both rare breeding species in Ireland, have bred at the site in recent years and it is considered that they probably attempt to nest every year. Mute Swan also breeds and Black-headed Gull has bred in the past.

C.70 Lough Croan Turlough SPA is of high ornithological importance, primarily for its Greenland White-fronted Goose population, but also because of its nationally important Shoveler and Golden Plover populations. The presence of Greenland White-fronted Goose, Golden Plover and Whooper Swan is of particular note as these are listed on Annex I of the E.U. Birds Directive. Part of the site is a Wildfowl Sanctuary.

Qualifying Interests

- Shoveler; *Anas clypeata* [A056]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.71 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.72 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.73 To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Shoveler; *Anas clypeata* [A056]
- Golden Plover; *Pluvialis apricaria* [A140]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]

C.74 To maintain or restore the favourable conservation condition of the wetland habitat at Lough Croan Turlough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Fertilisation (inside); and
- Fertilisation (outside).

Low Rank

- Grazing.

River Suck Callows SPA

C.75 The River Suck Callows SPA is a linear, sinuous site comprising a section of the River Suck from Castlecoote, County Roscommon to its confluence with the River Shannon close to Shannonbridge, a distance of approximately 70km along the course of the river. The river forms part of the boundary between Counties Galway and Roscommon. The site includes the River Suck itself and the adjacent areas of seasonally-flooded semi-natural lowland wet callow grassland. The River Suck is the largest tributary of the River Shannon.

C.76 The River Suck Callows SPA is of considerable ornithological importance, in particular for the presence of nationally important populations of five species. Of note is that three of the species that occur regularly, i.e. Whooper Swan, Greenland White-fronted Goose and Golden Plover, are listed on Annex I of the E.U. Birds Directive. Part of the River Suck Callows SPA is a Wildfowl Sanctuary.

Qualifying Interests

- Whooper Swan; *Cygnus cygnus* [A038]
- Wigeon; *Anas Penelope* [A050]
- Golden Plover; *Pluvialis apricaria* [A140]
- Lapwing; *Vanellus vanellus* [A142]
- Greenland White-fronted Goose; *Anser albifrons flavirostris* [A395]
- Wetland and Waterbirds [A999]

Conservation Objectives

C.77 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.78 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of whooper swan in River Suck Callows SPA;
- To restore the favourable conservation condition of wigeon in River Suck Callows SPA;
- To maintain the favourable conservation condition of golden plover in River Suck Callows SPA;
- To restore the favourable conservation condition of lapwing in River Suck Callows SPA;

- To restore the favourable conservation condition of Greenland white-fronted goose in River Suck Callows SPA; and
- To maintain the wetland habitats at River Suck Callows SPA as a resource for the regularly occurring migratory waterbirds that utilise these areas.

Key Vulnerabilities

High Rank

- Grazing (outside); and
- Fertilisation (outside).

Medium Rank

- Mowing/cutting of grassland;
- Dispersed habitation;
- Fertilisation (inside);
- Grazing (inside); and
- Nautical sports.

Low Rank

- Sylviculture, forestry;
- Leisure fishing; and
- Hunting.

SACs within 15km of Local Transport Plan and Active Travel Strategy Area

Brown Bog SAC

C.79 Brown Bog is located 5km north-west of Longford town, mainly in the townlands of Tully, Lissanurlan and Cartronlebagh. The site comprises a raised bog that includes both areas of high bog and cutover bot. The bog margins are mainly surrounded by scrub/woodland. There are few land uses associated with this site. There are no high bog drains and only two sets of marginal drains are present in the cutover to the north-west. At present there is no active peat-cutting on the site. A large area of cutover to the east of the site has been recently afforested with Sitka Spruce; *Picea sitchensis*. The majority of the bog has not been burnt for some time, although recent localised burning has taken place along the southern margin. Overall there has been little damage to this bog, with only small areas of cutover present. Most of the extent of the original peat basin appears to be remaining. However, peat-cutting and burning are the two main threats to the site.

C.80 Brown Bog is a site of considerable conservation significance as it comprises a relatively little-damaged raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Although the site is small it supports a good diversity of raised bog microhabitats including hummock/hollow complexes, pools and a flush system with surrounding tear pool complex, along with cutover which adds to the diversity and scientific value of the site. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives

C.81 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.82 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Brown Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Drying out.

Low Rank

- Other human induced changes in hydraulic conditions.

Mount Jessop Bog SAC

C.83 Mount Jessop Bog SAC occurs within the larger raised bog system that is designated as Mount Jessop Bog NHA (001450). It is situated 5km south-west of Longford Town in the townland of Mount Jessop, County Longford. The site is part of a basin raised bog that includes both areas of high bog and cutover bog. The site is bordered by open high bog on its northern and western sides and by agricultural land on its eastern side and southern side. The underlying geology is carboniferous limestone.

C.84 Mount Jessop Bog SAC is a site of considerable conservation significance comprising raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples of the Habitats Directive Annex I habitat Degraded Raised Bog (capable of regeneration) which is reverting to the priority Annex 1 habitat Active Raised Bog (7110) and a small area of the Annex 1 priority habitat Bog Woodland which is developing on the cutover. The site already supports a good diversity of raised bog microhabitats, including some hummock/hollow complexes, and

rewetted cutover bog. Red Grouse, a bird which is becoming increasingly rare in Ireland, has been recorded at this site, along with the Irish Hare – a Red Data Book species – which increases its overall scientific interest.

Qualifying Interests

- Degraded raised bogs still capable of natural regeneration [7120]
- Bog woodland [91D0]

Conservation Objectives

C.85 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.86 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.87 To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- Degraded raised bogs still capable of natural regeneration [7120]
- Bog woodland [91D0]

Key Vulnerabilities

High Rank

- Other human induced changes in hydraulic conditions.

Medium Rank

- Invasive non-native species; and
- Burning down vegetation.

Low Rank

- Problematic native species.

Lough Forbes Complex SAC

C.88 This site consists of a number of different habitats, and is centred around Lough Forbes, a lake formed by a broadening of the River Shannon. As well as the lake itself, there is also a series of raised bogs, callow grasslands and a variety of other aquatic and terrestrial habitats to the west of Newtown Forbes on the Longford/Roscommon boundary.

C.89 The raised bogs are vulnerable to water loss from peat-cutting and drainage, though ongoing restoration work involving blocking of drains is occurring. There are no known threats to the wintering birds though the increased use of the River Shannon system by leisure craft could cause disturbance. The importance of the Lough Forbes site lies in its excellent

diversity of habitats, some of which, for example the raised bogs, are rare and threatened. The site is also of ornithological importance for its wintering waterfowl, breeding Merlin and Red Grouse. The presence of Whooper Swan and Merlin is of particular note as these species are listed on Annex I of the E.U. Birds Directive.

Qualifying Interests

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

Conservation Objectives

C.90 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.91 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;

- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of natural eutophic lakes with Magnopotamion or Hydrocharition – type vegetation in Lough Forbes Complex SAC;
- To restore the favourable conservation condition of active raised bogs in Lough Forbes Complex SAC; and
- To restore the favourable conservation condition of alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) in Lough Forbes Complex SAC.

Key Vulnerabilities

High Rank

- Abandonment of pastoral systems, lack of grazing.

Medium Rank

- Abandonment/lack of mowing.

Low Rank

- Leisure fishing;
- Hunting;
- Diffuse groundwater pollution due to agricultural and forestry activities;

- Invasive non-native species; and
- Groundwater abstractions for public water supply.

Clooneen Bog SAC

C.92 Clooneen Bog lies approximately 3km south-east of Roosky in County Longford on the east bank of the River Shannon, just north of Lough Forbes. It is located almost entirely in the townlands of Clooneen, Bunanass, Edercloon and Cloonart (North and South). The site comprises areas of high bog, including bog woodland and cutover bog, and is bounded by a mineral ridge to the east and agricultural fields to the north. Although it would have originally adjoined the River Shannon to the west and Lough Forbes to the south, it is now separated from these by a road and agricultural fields.

C.93 Current land use on the site consists of mechanised peat-cutting to the north-west and south-west of the high bog. Some areas of cutover have been reclaimed for agriculture to the south-east and there are small conifer plantations to the east. Damaging activities associated with these land uses include drainage and burning. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site and pose a continuing threat to its viability. The bog is generally Sphagnum-poor due to burning, but regeneration is taking place.

C.94 Clooneen Bog is a site of considerable conservation significance as it consists of a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level. Bog woodland is listed as a priority habitat on Annex I of the E.U. Habitats Directive - priority status is given to habitats and species that are threatened throughout the E.U. The areas of degraded raised bog and Rhynchosporion are also of conservation importance, being habitats that are listed on Annex I of the E.U. Habitats Directive.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Bog woodland [91D0]

Conservation Objectives

C.95 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.96 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of degraded raised bogs still capable of natural regeneration in Clooneen Bog SAC; and
- To maintain the favourable conservation condition of bog woodland in Clooneen Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Mechanical removal of peat.

Low Rank

- Non-intensive cattle grazing; and
- Irrigation.

Lough Ree SAC

C.97 Lough Ree is the third largest lake in Ireland and is situated in an ice-deepened depression in Carboniferous limestone on the River Shannon system between Lanesborough and Athlone. The site spans Counties Longford, Roscommon and Westmeath. Some of is features (including the islands) are based on glacial drift. It has a very long, indented shoreline and hence has many sheltered bays. Although the main habitat, by area, is the lake itself, interesting shoreline, terrestrial and semi-aquatic habitats also occur.

C.98 Land uses 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, and thus restricting aquatic flora to shallower waters. At present Lough Ree is less affected by eutrophication than Lough Derg. Lough Ree and its adjacent habitats are of major ecological significance. Some of the woodlands around the lake are of excellent. St John's Wood is particularly important; it is one of the very few remaining ancient woodlands in Ireland. The lake itself is an excellent example of a mesotrophic to moderate-eutrophic system, supporting a rare fish species and a good diversity of breeding and wintering birds.

Qualifying Interests

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]
- Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (important orchid sites) [6210]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Alkaline fens [7230]
- Limestone pavements [8240]
- Bog woodland [91D0]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- Otter; *Lutra lutra* [1355]

Conservation Objectives

C.99 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.100 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation in Lough Ree SAC;
- To restore the favourable conservation condition of semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) in Lough Ree SAC;
- To restore the favourable conservation condition of degraded raised bogs still capable of natural regeneration in Lough Ree SAC;

- To maintain the favourable conservation condition of alkaline fens in Lough Ree SAC;
- To maintain the favourable conservation condition of limestone pavements in Lough Ree SAC;
- To restore the favourable conservation condition of bog woodland in Lough Ree SAC; and
- To maintain the favourable conservation condition of otter in Lough Ree SAC.

Key Vulnerabilities

High Rank

- Invasive non-native species;
- Other siltation rate changes; and
- Antagonism arising from introduction of species.

Medium Rank

- Abandonment/lack of mowing;
- Grazing;
- Fertilisation;
- Forest and plantation management and use;
- Dispersed habitation;
- Leisure fishing;
- Hunting;
- Nautical sports;

- Diffuse pollution to surface waters due to household sewage and waste waters; and
- Diffuse groundwater pollution due to agricultural and forestry activities.

Low Rank

- Piers/tourist harbours or recreational piers;
- Walking, horse riding and non-motorised vehicles;
- Thermal heating of waterbodies;
- Flooding modifications; and
- Inundation (natural processes).

Fortwilliam Turlough SAC

C.101 Fortwilliam Turlough is situated close to the eastern shore of Lough Ree, 6km south of Lanesborough, in County Longford. The surrounding countryside is flat, with a thin cover of drift. The floor of the basin is at two levels, a lower central area with several lakes and ponds, and a higher surrounding area of till with scattered rocks, extending north-westwards into flat fields and woodland. There is a little surface flow into the basin and floodwater appears to be strongly calcareous.

C.102 Threats to turloughs stem mainly from drainage and agricultural improvement. Fortwilliam seems largely unaffected by drainage, and standing water may persist throughout the summer. It is an oligotrophic site, which indicates that it has escaped significant nutrient input but renders it sensitive to damage should this occur. The turlough is grazed by cattle and sheep, but is undivided. Fortwilliam is the only extant large turlough in Longford and one of only two east of the River Shannon. It has a high diversity caused by a semi-permanent waterbody, abundant marl precipitation, a relative lack of grazing and small outcrops of limestone, so it is a very representative example of the

habitat. The turlough basin seems intact, its basin and hydrology largely unmodified. Its oligotrophic status is valuable, as this feature is becoming rarer in the context of modern agriculture. Due to these factors, Fortwilliam Turlough is a site of considerable ecological value.

Qualifying Interests

- Turloughs [3180]

Conservation Objectives

C.103 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.104 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of turloughs in Fortwilliam Turlough SAC.

Key Vulnerabilities

High Rank

- Intensive cattle grazing.

Medium Rank

- None.

Low Rank

- Diffuse groundwater pollution due to agricultural and forestry activities;
- Groundwater abstractions for agriculture; and
- Groundwater abstractions for public water supply.

Ardagullion Bog SAC

C.105 Ardaguillion Bog is located 5km north-east of Edgeworthstown, mainly in the townlands of Cloonshannagh (Coolamber Manor Demesne) and Ardaguillon in County Longford. The site comprises a raised bog that includes both areas of high bog and cutover bog. The site is bounded in the north-east by the local road running to Coolagherty. This site is the remnant of a much larger bog that is now cutover and afforested. There are areas of hummocks and pools in the centre of the high bog and the ground is wet and quaking. There is one flush in the centre of the high bog. There is a small area of coniferous forestry on a

section of high bog and cutover in the south-west of the site. Cutover bog is found all around this site.

C.106 Ardagullion Bog is a site of considerable conservation significance as it comprises a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site supports a good diversity of raised bog microhabitats, including hummocks and pools. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives

C.107 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.108 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Ardagullion Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- No threats or pressures.

SACs within 15km of Active Travel Strategy Area Only

Derragh Bog SAC

C.109 Derragh Bog SAC includes most of the raised bog system known as Derragh Bog which occurs within Lough Kinale and Derragh Lough NHA (000985). The boundary in the west and south of the site is contiguous with the boundary of Lough Kinale and Derragh Lough SPA (site code 004061). It is a small raised bog situated 2.5km east of Abbylara in County Longford in the townland of Derragh. This bog is an example of a floodplain raised bog which borders two lakes, Lough Kinale to the west and Derragh Lough to the south, the River Inny to the east and wet agricultural grassland to the north. To the west and south there is a full transition from high bog to cutover bog to semi-natural birch woodland, fen and swamp to Lough Kinale and Derragh Lough. The underlying geology of both lakes and bog is carboniferous limestone.

C.110 Derragh Bog SAC is a site of conservation significance comprising raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site contains interesting examples of the E.U. Habitats Directive Annex I priority habitat Bog Woodland along with the non-priority habitat Degraded Raised Bog (capable of regeneration). Although Derragh Bog is a small example of a raised bog, its development in close association with the lakes and their floodplains and the relatively intact wetland transition between the two systems make it unusual in a western European context. In addition, its location towards the north-eastern extreme of the range of raised bogs in Ireland and its close proximity to Moneybeg and Clare Island Bogs SAC (002340) increases its ecological importance. The site is being actively managed for conservation as part of the Coillte EU LIFE Project. Ireland has a high proportion of the total E.U. resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Conservation Objectives

C.111 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.112 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

C.113 To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Key Vulnerabilities

High Rank

- Other human induces changes in hydraulic conditions.

Medium Rank

- None.

Low Rank

- Problematic native species;
- Invasive non-native species; and
- Burning down vegetation.

Moneybeg and Clareisland Bogs SAC

C.114 This site is located on the border of Counties Meath and Westmeath, 9km east of the town of Granard. It is situated mainly in the townlands of Clareisland or Derrymacegan, Williamstown and Moneybeg in County Westmeath, and Ross in County Meath.

C.115 The Moneybeg and Clareisland Bogs site is of considerable conservation significance as it comprises two raised bogs with semi-natural lake margins. These are found at the north-eastern extreme of the range of raised bogs in Ireland. Active raised bog is a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site supports a diversity of raised bog habitats including hummock/hollows and pools. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U.

Ireland has a high proportion of the total E.U. resource of this type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives

C.116 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.117 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Moneybeg and Clareisland Bogs SAC.

Key Vulnerabilities

High Rank

- Mechanical removal of peat; and
- Other human induced changes in hydraulic conditions.

Medium Rank

- Invasive non-native species; and
- Burning down vegetation.

Low Rank

- Forestry clearance;
- Disposal of household/recreational facility waste;
- Hunting; and
- Other sport/leisure complexities.

Corbo Bog SAC

C.118 Corbo Bog is located 7km west of Lanesborough, mainly in the townlands Corbo, Cloonageeragh, Clooncashel Beg and Coolshagtena, in County Roscommon. The site comprises a raised bog that includes both areas of high bog and cutover bog. The site is bounded on the south by the

Lanesborough to Roscommon road, and a road from this one to Kilroosky forms part of the western boundary.

C.119 Except at the far western and southern edges of the site, active peat-cutting is carried out all around the high bog. There are two areas in particular where mechanised peat-cutting is affecting the high bog: in the north of the site the cut face is less than 50m from the pool systems and in the east the peat is being cut near to a flush. Damaging activities associated with these land uses include drainage and burning of the high bog. Two areas of the site in the north and north-east have recently been damaged by burning. Drains in the east of the site are also having 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. Finally, in the north and east of the site dumping of old cars has occurred.

C.120 Corbo Bog is a site of considerable conservation significance as it consists of a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats, including hummock/hollow complexes, pools and flushes. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives

C.121 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.122 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Corbo Bog SAC.

Key Vulnerabilities

High Rank

- Mechanical removal of peat.

Medium Rank

- Other human induced changes in hydraulic conditions.

Low Rank

- None.

Garriskil Bog SAC

C.123 Garriskil Bog SAC consists of two areas of raised bog: Garriskil Bog, which covers 324.81ha and lies 3km east of Rathowen in County Westmeath; and a small outlier, within the townland of Derrya, which covers 22.9ha and lies 2.2km to the east on the northern shore of Lough Derravaragh. Both bogs are remnants of the large river floodplain bogs which developed where the River Inny enters and leaves Lough Derravarragh. Garriskil Bog is bounded to the south-east and south-west by the rivers Inny and Riffey and by the Dublin-Sligo railway line to the north. It is considered an exceptional example of a midland raised bog and includes 170.26ha of uncut raised bog and 154.55ha of surrounding areas which includes 109ha of cutover bog. The section at Derrya (which comprises part of Lough Derravaragh Bog NHA (site code 000684)) has been restored as part of an EU LIFE project. The site consists of 2.5ha of high bog and 20.4ha of cutover, all of which, except for a broadleaf woodland fringe along the River Inny, was afforested in the 1970s. All the conifer plantations were recently clear-felled and restored by drain-blocking. It is bordered by open high bog to the north-east, by the River Inny to the west and by cutover bog grading into Lough Derravaragh to the south-east. The bedrock geology of both sites is carboniferous limestone.

C.124 Garriskil Bog SAC is a site of considerable conservation significance comprising two subsites, Garriskil Bog and Derrya Bog which contain raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples, covering significant areas, of the E.U. Habitats Directive Annex I habitats Active Raised Bog, Degraded

Raised Bog (which is being restored to the priority Annex 1 habitat Active raised bog), and Depressions on peat substrates (Rhynchosporion). The site already supports a large area of high quality raised bog microhabitats, which is unusual for a site in the east Midlands, including some very well developed hummock/hollow complexes and has a large area with the potential for restoration to ARB. Although the Derrya Bog subsite of the SAC is small (22.3ha) and lacks annex habitats it has been restored and has the potential to support the retention of ARB and the restoration of DRB to ARB in Lough Derravaragh Bog NHA. Ireland has a high proportion of the total E.U. resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]

Conservation Objectives

C.125 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.126 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Garriskil Bog SAC.

Key Vulnerabilities

High Rank

- Other human induced changes in hydraulic conditions.

Medium Rank

- Problematic native species.

Low Rank

- Invasive non-native species;
- Non-intensive cattle grazing;
- Mechanical removal of peat; and
- Burning down vegetation.

Ballymore Fen SAC

C.127 Ballymore Fen lies approximately 17km west of Mullingar adjacent to the Mullingar to Ballymore road (R390) in County Westmeath. The geology of the area is Carboniferous Limestone. The site occupies a relatively wide and deep depression in the surrounding drift which is fed on both the east and west by springs. The area may at one stage have been a lake of some size but at present is occupied by a transition mire complex with a characteristic lagg fen at the edges.

C.128 Parts of the site have been cut for turf in the past, as evidenced by parallel heather covered ridges and banks. Peat cutting has not occurred for a long time – confirmed by a local landowner. Regeneration of vegetation is occurring in these areas and the ground underfoot is very wet and soft. Ballymore Fen is interesting due to the overall variety of habitats and species in a relatively small area, and also due to the richness of the transition mire/scraw which is enhanced by the presence of the Red Data Book species Round-leaved Wintergreen.

Qualifying Interests

- Transition mires and quaking bogs [7140]

Conservation Objectives

C.129 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.130 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of transition mires and quaking bogs in Ballymore Fen SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Other point source pollution to surface water; and
- Problematic native species.

Low Rank

- Abandonment of pastoral systems, lack of grazing; and

- Fertilisation.

Lough Oughter and Associated Loughs SAC

C.131 Lough Oughter and its associated loughs occupy much of the lowland drumlin belt in north and central Cavan between Upper Lough Erne, Killeshandra and Cavan town. The site is a maze of waterways, islands, small lakes and peninsulas including some 90 inter-drumlin lakes and 14 basins in the course of the Erne River. The area lies on Silurian and Ordovician strata with Carboniferous limestone immediately surrounding.

C.132 The main threats to the quality of the site are water polluting activities (such as runoff 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, both adjacent to and within the site. 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 Goose.

C.133 The Lough Oughter area contains important examples of two habitats listed on Annex I of the E.U. Habitats Directive and supports a population of the Annex II species, Otter. The site as a whole is the best inland example of a flooded drumlin landscape in Ireland and has many rich and varied biological communities. Nowhere else in the country does such an intimate mixture of land and water occur over a comparable area, and many of the species of wetland plants, some considered quite commonplace in Lough Oughter and its associated loughs, are infrequent elsewhere.

Qualifying Interests

- Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation [3150]

- Bog woodland [91D0]
- Otter; *Lutra lutra* [1355]

Conservation Objectives

C.134 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.135 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation in Lough Oughter and Associated Loughs SAC;
- To maintain the favourable conservation condition of bog woodland in Lough Oughter and Associated Loughs SAC; and

- To maintain the favourable conservation condition of otter in Lough Oughter and Associated Loughs SAC.

Key Vulnerabilities

High Rank

- Removal of hedges and copses or scrub;
- Diffuse pollution to surface waters via storm overflows or urban run-off;
- Diffuse pollution to surface waters due to agricultural and forestry activities;
- Invasive non-native species; and
- Flooding and rising precipitations.

Medium Rank

- Artificial planting on open ground (non-native trees); and
- Outdoor sports and leisure activities, recreational activities.

Low Rank

- Dispersed habitation; and
- Infilling of ditches, dykes, ponds, pools, marshes or pits.

Lough Funshinagh SAC

C.136 Lough Funshinagh is located approximately 12km north-west of Athlone, in County Roscommon. The lake, which is underlain by Carboniferous limestone, is classified as a turlough because it fluctuates to a significant extent

every year and occasionally dries out entirely (approximately two to three times every ten years). In most years, however, an extensive area of water persists. This is filled with vegetation, providing excellent breeding habitat for wildfowl, and the site is designated a Wildfowl Sanctuary. The lake is fed by springs and a small catchment to the west. It is mesotrophic in quality, with some marl (calcium carbonate) deposition, and is surrounded by pastures.

C.137 Some of the major threats to lakes in Ireland arise from drainage and agricultural intensification. In the case of the latter, the application of fertiliser can lead to eutrophication and a general loss of species diversity. Lough Funshinagh is currently mesotrophic, but it has been described in the past as being full of vegetation. Thus it may be that it has not been enriched significantly by agricultural run-off in recent times. There are localised eutrophic patches around the shores where grazing animals congregate, but the lake water is strikingly clear. There have been attempts at drainage in the past, most recently in 1990. As yet, this has resulted in little structural damage to the site.

C.138 Lough Funshinagh is of major ecological importance, both from a vegetation and ornithological viewpoint. Turloughs are listed as priority habitat on Annex I of the E.U. Habitats Directive. Lough Funshinagh is a unique and atypical example of this habitat, and has a particular value in being relatively unmodified by grazing and modern agriculture.

Qualifying Interests

- Turloughs [3180]
- Rivers with muddy banks with Chenopodion rubric p.p. and Bidention p.p. vegetation [3270]

Conservation Objectives

C.139 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.140 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of turloughs in Lough Funshinagh SAC; and
- To maintain the favourable conservation condition of rivers with muddy banks with Chenopodion rubric p.p. and Bidention p.p. vegetation in Lough Funshinagh SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Fertilisation.

Low Rank

- Stock feeding; and
- Paths, tracks, cycling tracks.

Lough Owel SAC

Qualifying Interests

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- Transition mires and quaking bogs [7140]
- Alkaline fens [7230]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Conservation Objectives

C.141 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.142 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of hard oligo-mesotrophic waters with benthic vegetation of Chara spp. in Lough Owel SAC;
- To maintain the favourable conservation condition of transition mires and quaking bogs in Lough Owel SAC;
- To maintain the favourable conservation condition of alkaline fens in Lough Owel SAC; and
- To maintain the favourable conservation condition of white-clawed crayfish in Lough Owel SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Piers/tourist harbours or recreational piers;

- Airports, flightpaths;
- Outdoor sports and leisure activities, recreational activities;
- Other sport/leisure complexities; and
- Diffuse pollution to surface waters due to agricultural and forestry activities.

Low Rank

- Hunting;
- Landfill, land reclamation and drying out, general; and
- Surface water abstractions for public water supply.

White Lough, Ben Loughs and Lough Doo SAC

C.143 White Lough, Ben Loughs and Lough Doo SAC is comprised of four hard water lakes in a small, poorly-drained valley, 4km east of Castlepollard, County Westmeath. A curious feature of the site is the contrast between Lough Doo and the other loughs. Although they are in close proximity and are connected by a ditch, Lough Doo has a very limited aquatic and marginal flora while all the rest are colonised by a wide, dense fringe of Great Fen-sedge; *Cladium mariscus* swamp. The bottom of Lough Doo is covered by an unusually extensive mat of stonewort species (Chara spp.), with a few sparse stands of Common Reed; *Phragmites australis*. The calcium-rich water has deposited marl on the lake bed and over the stoneworts themselves. The presence of stoneworts in such abundance is significant as many of these species are threatened by loss of habitat or by pollution.

C.144 Areas of wet woodland dominated by willows (Salix spp.) fringe some of the lakes, and elsewhere wet grassland and freshwater marsh occur. In places peat formation and acidification is indicated by the presence of heath species.

Some of the steeper slopes around the lakes are covered with scrub or small areas of broadleaf woodland.

C.145 The White-clawed Crayfish, a species listed on Annex II of the E.U. Habitats Directive and protected under the Wildlife Act, 1976, has been recorded from these lakes. This site is of considerable conservation significance for its hard water lakes and for the occurrence of White-clawed Crayfish. The variety of habitats within this valley and the contrasting vegetation types add further to its interest.

Qualifying Interests

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Conservation Objectives

C.146 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.147 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;

- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of hard oligo-mesotrophic waters with benthic vegetation of Chara spp. in White Lough, Ben Loughs and Lough Doo SAC; and
- To maintain the favourable conservation condition of white-clawed crayfish in White Lough, Ben Loughs and Lough Doo SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Fertilisation (inside);
- Fertilisation (outside);
- Agriculture activities; and
- Burning down vegetation.

Low Rank

- Abandonment of pastoral systems, lack of grazing;
- Disposal of inert materials;

- Trapping, poisoning, poaching; and
- Outdoor sports and leisure activities, recreational activities.

Lough Lene SAC

C.148 This lake is situated 4km north-east of Castlepollard in County Westmeath. It is a deep (20m maximum depth), clear, hard-water lake with marl deposition (especially noticeable on the margins). Much of the lakeshore is accessible to grazing cattle and the surrounding fields have been heavily improved. The stoneworts may become gradually displaced as the principal primary producers by phytoplankton or vascular plants if the lake becomes artificially enriched with nutrients. Unpolluted hard-water lakes such as Lough Lene are becoming increasingly rare in Ireland and in Europe, and are of a type that is listed on Annex I of the E.U. Habitats Directive. This site is thus of conservation importance.

Qualifying Interests

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Conservation Objectives

C.149 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.150 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of hard oligo-mesotrophic waters with benthic vegetation of Chara spp. in Lough Lene SAC; and
- To restore the favourable conservation condition of white-clawed crayfish in Lough Lene SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Abandonment of pastoral systems, lack of grazing;
- Fertilisation; and
- Piers/tourist harbours or recreational piers.

Low Rank

- Agriculture activities; and
- Diffuse pollution to surface waters due to household sewage and waste waters.

River Shannon Callows SAC

C.151 The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50km long and averages about 0.75km wide (reaching 1.5km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from silty-alluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.

C.152 The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site – Molinia meadows and lowland hay meadows with good examples of a further three Annex habitats (two with priority status). In winter the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.

Qualifying Interests

- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]
- Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510]
- Alkaline fens [7230]
- Limestone pavements [8240]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- Otter; *Lutra lutra* [1355]

Conservation Objectives

C.153 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.154 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) in River Shannon Callows SAC;
- To restore the favourable conservation condition of lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) in River Shannon Callows SAC;
- To maintain the favourable conservation condition of alkaline fens in River Shannon Callows SAC;
- To maintain the favourable conservation condition of limestone pavements in River Shannon Callows SAC;
- To maintain the favourable conservation condition of alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) in River Shannon Callows SAC; and
- To maintain the favourable conservation condition of otter in River Shannon Callows SAC.

Key Vulnerabilities

High Rank

- Abandonment /lack of mowing;
- Abandonment of pastoral systems, lack of grazing;
- Use of biocides, hormones and chemicals; and
- Flooding.

Medium Rank

- Intensive grazing;
- Fertilisation;
- Forestry clearance;
- Modifying structures of inland watercourses;
- Siltation rate changes, dumping, depositing of dredged deposits; and
- Predation.

Low Rank

- Non-intensive mixed animal grazing;
- Removal of hedges and copses or scrub;
- Grazing in forests/woodland;
- Mechanical removal of peat;
- Paths, tracks, cycle tracks;
- Hunting;
- Outdoor sports and leisure activities, recreational activities;
- Trampling, overuse;
- Landfill, land reclamation and drying out, general; and
- Modification of hydrographic functioning, general.

Ballynamona Bog and Corkip Lough SAC

C.155 Ballynamona Bog and Corkip Lough is situated approximately 9km west of Athlone, mainly in the townlands of Skeanamuck, Carrowkeeran and Pollalaher, in County Roscommon. The site comprises a relatively small portion

of what was once a large bog complex, and includes areas of high bog and cutover bog, and also the turlough, Corkip Lough.

C.156 Current land use on the site consists of limited peat-cutting at the north-east and south-west of the site. There is a small area of commercial forestry at the east of the site. Some areas of cutover bog at the south have been reclaimed for agriculture. Damaging activities associated with these land uses include frequent burning. This recurrent burning is having a serious drying effect on the bog. Drainage, for the most part, is restricted to the cutover areas of the bog. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

C.157 Ballynamona Bog and Corkip Lough is a site of considerable conservation significance as it consists of a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total E.U. resource of raised bog (over 60%) and so has a special responsibility for its conservation at an international level. Active raised bog, bog woodland and turlough are listed as priority habitats on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Areas of species-rich calcareous grassland add to the diversity of the site.

Qualifying Interests

- Turloughs [3180]
- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Depressions on peat substrates of the Rhynchosporion [7150]
- Bog woodland [91D0]

Conservation Objectives

C.158 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.159 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of turloughs in Ballynamona Bog and Corkip Lough SAC;
- To restore the favourable conservation condition of active raised bogs in Ballynamona Bog and Corkip Lough SAC; and
- To restore the favourable conservation condition of bog woodland in Ballynamona Bog and Corkip Lough SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Disposal of household/recreational facility waste; and
- Modification of hydrographic functioning, general.

Low Rank

- Invasive non-native species; and
- Landfill, land reclamation and drying out, general.

Carn Park Bog SAC

C.160 Carn Park Bog is situated 8km east of Athlone, in the townlands of Tullywood, Carn Park, Cappaghbrack, Warren High and Moydrum, County Westmeath. The site comprises a raised bog that includes both areas of high bog and cutover bog. The margins of the site are bounded by roads on the north, west and southern margins and forestry on the east.

C.161 Current land use 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 north-west of the site. Damaging activities associated with these land uses include drainage throughout the site (both old

and recent) and extensive burning of the bog. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and which pose a continuing threat to its viability.

C.162 Carn Park Bog is a site of considerable conservation significance as it comprises a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats, including hummock/hollow complexes, pools and Sphagnum lawns, as well as the rare species Sphagnum pulchrum. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Conservation Objectives

C.163 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.164 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Carn Park Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Invasive non-native species;
- Introduced genetic material, GMO; and
- Landfill, land reclamation and drying out, general.

Low Rank

- Mechanical removal of peat; and
- Paths, tracks, cycle tracks.

Ballinturly Turlough SAC

C.165 Ballinturly Turlough is situated in a v-shaped basin just north of Athleague in County Roscommon. It is a very large site stretching westwards for 2.5km from the road, and opening out at the western end over large fields. Bedrock is exposed at the north-eastern end, and elsewhere the edges of the basin are frequently strewn with loose rocks. The basin floor is mainly flat, but west of centre is a depression in which there is a shallow lake.

C.166 Lapwing and Snipe nest in the area, and the site is also used by post-breeding flocks and migrating populations of birds, i.e. Black-tailed Godwit (105), Whooper Swan (18), Greenland White-fronted Goose (71), Wigeon (899), Teal (303), Mallard (37), Pintail (49), Shoveler (24), Tufted Duck (18), Lapwing (303) and Curlew (86). Figures in parentheses are the average of five counts during two seasons in the period 1984/85-1986/87. Pintail, Shoveler, Greenland White-fronted Goose, Whooper Swan and Black-tailed Godwit are listed in the Red Data Book and, the latter three species, on Annex I of the E.U. Birds Directive.

C.167 Ballinturly Turlough is the fourth largest active turlough still extant in Ireland. It is an exceptional site which contains a wide range of habitat types, vegetation communities and plant species. A special feature of the site is that despite a seasonal connection with the River Suck, the groundwater is oligotrophic (nutrient-poor) enough to support normally calcifuge plants. The site is little damaged by grazing, which occurs over most of it, and there is little internal drainage. Areas formerly cut for peat are largely re-generating and support a diversity of vegetation types. Overall, human impact on the site is generally low. Turloughs are listed, with priority status, on Annex I of the E.U. Habitats Directive and, as such, are of considerable conservation significance. The large wintering bird population adds substantially to the importance of the site.

Qualifying Interests

- Turloughs [3180]

Conservation Objectives

C.168 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.169 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of turloughs in Ballinturly Turlough SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Fertilisation; and
- Hunting.

Crosswood Bog SAC

C.170 Crosswood Bog is situated approximately 5km east of Athlone, County Westmeath, mainly in the townlands of Crosswood, Glenaghanvoneen, and Creggan Lower. The site comprises a raised bog that includes both areas of high bog and cutover bog. The northern margin of the bog lies along the southern side of the Dublin-Galway railway line.

C.171 Current land use 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 land uses 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.

C.172 Crosswood Bog is a site of considerable conservation significance as it comprises a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats, including hummock/hollow complexes, pools and wooded flushes. Furthermore, it supports a population of the rare bog moss Sphagnum pulchrum. Active raised bog is listed as a priority habitat on Annex I of the E.U. Habitats Directive. Priority status is given to habitats and species that are threatened throughout the E.U. Ireland has a high proportion of the total E.U. resource of this habitat type (over 60%) and so has a special responsibility for its conservation at an international level.

Qualifying Interests

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]

Conservation Objectives

C.173 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.174 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of active raised bogs in Crosswood Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Mechanical removal of peat;
- Invasive non-native species;
- Introduced genetic material, GMO; and
- Landfill, land reclamation and drying out, general.

Low Rank

- Stock feeding;
- Paths, tracks, cycle tracks;

- Disposal of household/recreational facility waste; and
- Fire and fire suppression.

Scragh Bog SAC

C.175 Scragh Bog lies approximately 10km north-west of Mullingar, County Westmeath. This site comprises a wet transition fen with a floating root mat which has developed in a small oval-shaped depression. The fen is fed by weak surface springs and drains by an artificially defined outlet. The fen becomes open carr in the central area and in places grades into ombrotrophic bog.

C.176 Marsh Fritillary; *Euphydryas aurinia, Order Lepidoptera*, a butterfly listed on Annex II of the E.U. Habitats Directive, has been recorded from the site, but in its present condition the habitat is only marginally suitable for the species and any populations present are likely to be intermittent, small and short-lived.

C.177 Most of the site is managed as a Nature Reserve. The outflow stream is included in the site, since interference with this outflow could damage the site hydrology. A small section at the bottom of a field to the south is also included – this area supports a species-rich marsh/wet grassland vegetation. As well as being vulnerable to interference with its hydrology, Scragh Bog is also susceptible to eutrophication as a result of agricultural run-off from the surrounding land.

C.178 Scragh Bog contains excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive – alkaline fen and transition mire. These habitats support a number of rare plants, notably Drepanocladus vernicosus, and also play host to a well-developed invertebrate fauna.

Qualifying Interests

- Transition mires and quaking bogs [7140]

- Alkaline fens [7230]
- Slender Green Feather-moss; *Hamatocaulis vernicosus* [6216]

Conservation Objectives

C.179 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.180 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of transition mires and quaking bogs in Scragh Bog SAC;
- To maintain the favourable conservation condition of alkaline fens in Scragh Bog SAC; and

- To maintain the favourable conservation condition of slender green feather-moss in Scragh Bog SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- Fertilisation;
- Paths, tracks, cycle tracks; and
- Diffuse pollution to surface waters due to household sewage and waste waters.

Low Rank

- Agricultural activities.

Lough Croan Turlough SAC

C.181 Lough Croan turlough is located south of the Athlone to Mount Talbot road in County Roscommon. It is a linear wetland, aligned north-west/south-east, which lies in a relatively flat area of glacial till. It is split into two main parts – the east functions as a typical turlough, with a wet area dominated by Common Reed; *Phragmites australis* at the centre; at the west is a fen, with floating vegetation in places, which also floods in winter. In between there is undulating ground. There is little over-ground flow, but both basins retain some water all year round.

C.182 Lough Croan is an important ornithological site and is a Wildfowl Sanctuary. The following species use the site (except where indicated, numbers are the average of 11 counts over 3 seasons, 1984/85-1986/87): Shoveler (154), Wigeon (483), Gadwall (10, 1 count), Teal (473), Mallard (32), Pintail (17), Coot (42), Lapwing (445; 2,600 in 1988), Curlew (103), Golden Plover (160; occasionally numbers between 1000 and 3000 are recorded), Whooper Swan (11) and Bewick's Swan (18, 1 count). Pochard (6 breeding pairs in 1991), Shoveler (proved breeding in 1993), Mute Swan and Black-headed Gull also occur at the site and nest, as do Snipe, Curlew and Lapwing. Greenland White-fronted Goose regularly utilise this turlough for feeding and, when water is high, for roosting. These birds are part of the River Suck population. Numbers vary, but in most winters between 150 and 300 individuals are recorded. Short-eared Owl has once been recorded from the site; this species, Whooper Swan, Golden Plover and Greenland White-fronted Goose are listed in the Red Data Book and, along with Bewick's Swan, on Annex I of the E.U. Birds Directive.

C.183 Lough Croan Turlough is an unusual wetland that contains fen, reedswamp and turlough vegetation communities in juxtaposition. The vegetation is highly diverse, with a total of 17 different communities occurring, several of which are rare or unusually large in extent. The site is notable for the presence of the rare, Northern Yellow-cress, which occurs frequently. The wintering waterfowl numbers are large and the site is especially useful to dabbling duck species. This is an important site because of its overall size, its birdlife and the rare plant communities and species it supports. Turloughs are rare and threatened habitats that are listed, with priority status, on Annex I of the E.U. Habitats Directive and, as such, are of considerable conservation significance.

Qualifying Interests

- Turloughs [3180]

Conservation Objectives

C.184 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.185 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of turloughs in Lough Croan Turlough SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Stock feeding.

Lough Bane and Lough Glass SAC

C.186 This site is located on the Meath/Westmeath border, about 10km south of Oldcastle. It comprises three lakes situated in a shallow valley. Lough Bane is by far the largest of the group, with the much smaller Lough Glass occurring immediately to the east and Lough Glass North to the north-west. The lakes occur at the headwaters of the River Deel, with the main outflow at the south-east end of Lough Bane. The outflow is not very substantial and partly overgrown with vegetation. The connection between Lough Glass and Lough Bane has now been severed and the flow from Lough Glass is diverted to the south-west. The water level has dropped over the years and has exposed soft marl along parts of the shore.

C.187 The lake has Brown Trout and is an important angling lake. An important population of White-clawed Crayfish was known from these lakes, but this species disappeared from the site in the 1980s following what is considered to have been an outbreak of crayfish fungus plague; *Aphanomyces astaci*. The National Parks and Wildlife Service has a desire to see the White-clawed Crayfish population re-established in Lough Bane should habitat conditions be assessed as suitable. The lakes and fringing wetlands support a varied avifauna, including Little Grebe, Cormorant, Lapwing, Curlew and Snipe.

C.188 Despite being surrounded by mostly improved pasture, the quality of the water appears good and Lough Bane has been classified as a very oligotrophic system. However, as it is a small water body and situated in a valley, it is vulnerable to water pollution. A further threat comes from afforestation within

the catchment – should there be an increase in the areas under commercial forestry, the quality of the water could be affected. Overall, this is a fine example of a hard water marl lake system with good Chara communities. Such systems are becoming scarce in Europe.

Qualifying Interests

- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]
- White-clawed Crayfish; *Austropotamobius pallipes* [1092]

Conservation Objectives

C.189 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.190 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of hard oligo-mesotrophic waters with benthic vegetation of Chara spp. in Lough Bane and Lough Glass SAC; and
- To restore the favourable conservation condition of white-clawed crayfish in Lough Bane and Lough Glass SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Removal of hedges and copses or scrub.

Annaghmore Lough (Roscommon) SAC

C.191 Annaghmore Lough is located 5km north-west of Strokestown, County Roscommon. It lies at the centre of a network of small lakes in a rolling, drift-covered landscape. The shoreline slopes gently to the lake and these low-lying margins are extensively flooded in winter. In summer, when water levels recede, substantial areas of this shallow calcareous lake dry out, leaving flat expanses of exposed marl. A smaller, less calcareous lake occurs to the south of the site.

C.192 The site is important for wintering birds and is listed as a wildfowl sanctuary, with nationally important numbers of Teal (545) and Shoveler (55) (counts are average peaks for period 1998/99-2002/03). A good diversity of other species occur in local or regional concentrations, including Wigeon (402), Mallard (183), Pochard (28), Goldeneye (22), Lapwing (297) and Curlew (84). Of particular note is the occurrence, albeit in small numbers, of two species which are listed on Annex I of the E.U. Birds Directive, Whooper Swan (7) and Golden Plover (264).

C.193 This site is relatively intact with only minor damage caused by cattle poaching and some burning on the fen. Some infilling of wetland vegetation has occurred between the northern shore of the lake and the nearby road. Drainage is a potential threat to the site and associated floodlands. This is a site of considerable conservation importance as it contains a range of uncommon plant species, supports significant bird numbers, and contains a good example of alkaline fen vegetation. It is also particularly noteworthy because it supports a population of the rare snail Vertigo geyeri.

Qualifying Interests

- Alkaline fens [7230]
- Geyer's Whorl Snail; *Vertigo-geyeri* [1013]

Conservation Objectives

C.194 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.195 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of alkaline fens in Annaghmore Lough (Roscommon) SAC; and
- To restore the favourable conservation condition of geyer's whorl snail in Annaghmore Lough (Roscommon) SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Fire and fire suppression;
- Modification of cultivation practices; and

- Abandonment of pastoral systems, lack of grazing.

Castlesampson Esker SAC

C.196 Castlesampson Esker is a complex site with esker, turlough and raised bog all found. The esker is the most westerly of an important group of eskers centred on Adrnacloon Hill in south-east County Roscommon, 9km west of Athlone. It forms a steep-sided, crescent-shaped hill composed of glacial gravels, situated on the south side of a metalled road. Although gravel is being quarried all around the esker and gravel pits occur within the site, the esker ridge itself is largely intact and fairly undisturbed. Lying to the east of the esker is a raised bog, whilst to its west is a turlough.

C.197 The Castlesampson Esker site is of high conservation for the proximity and juxtaposition of esker, raised bog and turlough. The esker itself is of high importance for its almost intact structure (something which is very rare in Irish eskers), its relatively undisturbed state and for the presence of good quality, species-rich dry calcareous grassland, a habitat that is listed with priority status on Annex I of the E.U. Habitats Directive. It is also notable for the good variety of rare or unusual vascular plant species that it supports. The transitional area between esker and raised bog vegetation is of interest, and notable for supporting a population of a protected vascular plant species. The raised bog itself is fairly intact and includes areas of active raised bog, degraded raised bog and Rhynchosporion vegetation, all habitats that are listed on Annex I of the E.U. Habitats Directive. The turlough section of the site contains a wide range of grassland and turlough habitats and includes some areas of excellent quality. Its floristic diversity is high and it is of particular interest for the remarkable contrast shown by the vegetation of grazed and ungrazed areas. The pattern of flooding is also unusual, appearing to come mostly from a few swallow holes in the south. Turlough is a habitat listed with priority status on Annex I of the E.U. Habitats Directive.

Qualifying Interests

- Turloughs [3180]
- Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (important orchid sites) [6210]

Conservation Objectives

C.198 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.199 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To restore the favourable conservation condition of turloughs in Castlesampson Esker SAC; and

- To restore the favourable conservation condition of semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) in Castlesampson Esker SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Sand and gravel extraction; and
- Hand cutting of peat.

Lisduff Turlough SAC

C.200 Lisduff Turlough is located just south of Athleague in County Roscommon, about 3km from the River Suck. It lies in a shallow basin among low hills of glacial drift, with occasional rock outcrops. There is a semi-permanent over-ground inflow from the north-west arm of the turlough and the site is relatively wet. Some pools persist into the summer months and have a good development of fen peat. The ground water is highly calcareous and there is precipitation of marl.

C.201 The site is of ornithological importance for its waders and wintering wildfowl: Wigeon (310), Teal (97), Mallard (67), Pintail (5), Pochard (119),

Golden Plover (143), Lapwing (250) and Curlew (70). The above figures are the average of 5 counts made over 3 seasons, 1984/85-1986/87. Bewick's Swan and Snipe also occur regularly at the site. Snipe, Redshank (1 pair) and Dunlin (1-5 pairs) nest at the site. Dunlin, Pintail, Pochard and Golden Plover are listed in the Red Data Book, the latter species and Bewick's Swan also on Annex I of the E.U. Birds Directive. The site is little-modified by grazing or drainage, and there is little human influence on the site at present.

C.202 Lisduff Turlough has a good zonation of oligotrophic vegetation types, including some communities that are rare in turloughs. It is of high ecological value as one of the few turloughs in near-pristine condition. The birdlife of the site adds significantly to its importance.

Qualifying Interests

- Turloughs [3180]

Conservation Objectives

C.203 The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which 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.

C.204 The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;

- The natural range of the species is neither being reduced nor is 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.

Site Specific Objectives

- To maintain the favourable conservation condition of turloughs in Lisduff Turlough SAC.

Key Vulnerabilities

High Rank

- None.

Medium Rank

- None.

Low Rank

- Fertilisation; and
- Other human intrusions and disturbances.

Ramsar Sites within 15km of Active Travel Strategy Area only

Lough Derravaragh Ramsar Site

C.205 Lough Derravaragh is located approximately 12km north of Mullingar town. The River Inny, which is a major tributary of the River Shannon, flows into and out of the lake at its north-west end. At this end, the lake is wide and shallow and is backed by raised or cutaway bog. In contrast, the lake's south-eastern arm is narrow, running between resistant limestone outcrops which slope steeply to the lakeshore. The lake is shallow and its water is hard with an alkaline pH.

C.206 A notable feature of Lough Derravaragh is the range of aquatic lower plant (Charophyte) species which occur here. Eight species have been recorded, several of which are restricted in their distribution in Ireland. Around the lake margin, a range of habitats have been created as a result of drainage of the River Inny. At the western end are extensive reedbeds and swamps dominated by Common Reed; *Phragmites australis* with scattered stands of Downy Birch; *Betula pubescens* and Willows (Salix spp.). Elsewhere, there is freshwater marsh vegetation dominated by sedges (Carex spp.) and often tussock-forming grasses (e.g. Deschampsia caespitosa and Festuca sp.), with a range of flowering herbs including Nodding Bur-Marigold; *Bidens cernua* and Trifid BurMarigold; *Bidens tripartita*. The lakeshore is a mineral-rich substrate and thus several plant species of poor fen habitats are abundant, such as Black Bog-rush; *Schoenus nigricans* and Long-stalked Yellow Sedge; *Carex lepidocarpa*.

C.207 Small areas of raised bog adjoin the lake at its western end. Here, the wet surface mostly consists of an undulating carpet of Sphagnum moss, Ling Heather; *Calluna vulgaris* and Hares-tail Cottongrass; *Eriophorum vaginatum* are abundant. Cutaway areas are abundantly colonised by Scot's Pine; *Pinus*

sylvestris, Downy Birch; *Betula pubescens* with occasional Sessile Oak; *Quercus petraea*.

C.208 Knockeyon and the other hills around the south-eastern end of the lake support deciduous woodland which comprises mostly native species. Hazel; *Corylus avellana*, Rowan; *Sorbus aucuparia*, Ash; *Fraxinus excelsior* and Sessile Oak; *Quercus petraea* are abundant. Exotic species occur occasionally, including Beech; *Fagus sylvatica*.

C.209 Chara denudata, an aquatic charophyte species, has been recorded in Lough Derravaragh. This rare plant occurs in only five sites in County Westmeath, is restricted to highly calcareous lakes and is intolerant of pollution. The species is listed in the Charopyte Red Data Book.

C.210 Lough Derravaragh holds nationally important numbers of Pochard (average peak 933), Tufted Duck (average peak 451), Coot (average peak 315), Mute Swan (average peak 137) (counts from 1984/5 to 1986/7).

C.211 The following insects have been recorded in Lough Derravaragh (all three are in Order Trichoptera): Metatype fragilis and Limnephillis nigriceps, also Tinodes maculicornis which is of European significance.

C.212 This site is a valuable habitat for Otter, a species listed in Annex II of EU Habitats Directive.

C.213 The lake is an important amenity for anglers, as it holds a population of Brown Trout (Salmo trutta). Knockbody Wood is used for shooting Pheasant. Local groups use the lake for canoeing and watersports. The fish and wildfowl are threatened by pollution of the lake with organic farm material, and a degree of eutrophication is indicated by the presence of green algae along Lough Derravaragh's shores.

C.214 The lake is significant as a habitat for wildfowl, fish and otters, as well as for lower plants and insects, some of which are of European significance.

Although bird numbers have declined significantly since the 1970's, Lough Derravaragh's remaining wildfowl populations are less erratic than on other lakes in the locality, so its importance is still considerable.

Qualifying Interests

- Pochard; *Aythya farina*
- Tufted Duck; *Aythya fuligula*
- Coot; *Fulica atra*
- Mute Swan; *Cygnus olor*
- Otter; *Lutra lutra*

Conservation Objectives

C.215 No specific conservation objectives are available for this site.

Key Vulnerabilities

C.216 Refer to key vulnerabilities for Lough Derravaragh SPA.

Lough Owel Ramsar Site

C.217 Lough Owel is a large (1,008ha) calcareous lake located north-west of Mullingar. It is a relatively shallow lake with a rocky, marl-covered bottom. The rocky nature of the shoreline has given rise to marginal vegetation which is patchy and sparse. Apart from some reedswamp formed by Common Reed; *Phragmites australis* and Common Clubrush; *Scirpus lacustris*, shoreline vegetation is dominated by occasional patches of Alders; *Alnus glutinosa*. There are however areas of marsh and fen in the northern and south-western corners

of the lake. These areas (Bunbrosna marsh and Tullaghan fen) were formerly separate A.S.I.s but have now been subsumed into the Lough Owel N.H.A.. Bunbrosna is an area of marsh and fen which is partially invaded by Birches; *Betula pubescens* and Willows (Salix spp.). The area contains some rare plant species, namely Marsh Pea; *Lathyrus palustris*, Marsh Fern; *Thelypteris palustris* and the protected Round-leaved Wintergreen; *Pyrola rotundifolia*. Tullaghan fen is an area of flooded cut-over bog which has developed a varied fen and marsh vegetation quite similar to Bunbrosna marsh. Mud Sedge; *Carex limosa*, Greater Tussock Sedge; *Carex appropinquata* and Marsh Fern; *Thelypteris palustris* are to be found here. In addition, three other rare plant species are found along the lake margins namely, White Sedge; *Carex curta*, Marsh Stitchwort; *Stellaria palustris* and Frogbit; *Hydrocharis morsusranae*.

C.218 Although Lough Owel is not noted for its wildfowl there are small populations of Mallard, Shoveler, Pochard and Tufted Fuck present. Farmland adjacent to the lake are feeding grounds for internationally important numbers of Greenland White-fronted Goose. Lough Owel is one of the most important fishing lakes in the Midlands and is especially good for Trout. The possible presence of Scharff's Char; *Savelinus scharffi* here, a distinct race confined to Lough Owel and Lough Ennell, is also of immense interest.

C.219 With the exception of Lough Carra in County Mayo, Lough Owel is the best example of a large, spring-fed calcareous lake in the country. The lake and fringing wetland areas support an outstanding array of rare plant species as well as supporting bird and fish populations of considerable interest. Possible threats to the scientific interest of the lake include the increasing of levels of water supply to Mullingar, overfishing, eutrophication caused by local farming practices and pressure from amenity uses such as boating and fishing.

Qualifying Interests

- Spring-fed calcareous lake
- Rare plant species
- Greenland White-fronted Goose; *Anser albifrons flavirostris*

- Scharff's char; *Savelinus scharffi*

Conservation Objectives

C.220 No specific conservation objectives are available for this site.

Key Vulnerabilities

C.221 Refer to key vulnerabilities for Lough Owel SPA.

Lough Iron Ramsar Site

C.222 Lough Iron Ramsar Site is a long narrow midland lake, some 250 hectares in size. It is located 12km north-west of Mullingar and is surrounded by intensively farmed agricultural land. Drainage of the river Inny in the 1960's has led to a drastic drop in the level of the lake and this in turn has led to the development of freshwater marsh and wet grassland on what was previously lake bed. The dominant marsh species are Canary Reed Grass; *Phalaris acumdinacea* and Purple Moor Grass; *Molinia caerulea*, the latter species farming large expanses of wet grassland. There also patches of calcareous few, wet woodland dominated by Downy Birch; *Betula pubescens* and tall sedge few dominated by Tufted Sedge; *Carex elata* and Bottle Sedge; *Crex rostrata*. Quite a wide band of Common Reed; *Phragmites australis* fringes the lake. Large areas of fringing freshwater marsh have been badly damaged by the planting of conifers. This has occurred along the western edge of the lake.

C.223 Despite the spread of fringing marsh and forestry the lake is one of the most important wildfowl sites in the midlands. In addition to supporting large numbers of snipe and duck there are internationally important numbers of Greenland White-fronted Geese and Whooper Swans present during winter. The Greenland White-front's use pastures surrounding the lake as feeding

grounds. The marsh areas contain quite a few rare plant species including Fen Bedstraw; *Galium uliginosum*, Frogbit; *Hydrocharis morsus-ranae*, a Duckweed; L*enua polyrrhiza* and Marsh Pea; *Lathyrus palustris*. The latter species was legally protected.

Qualifying Interests

- Greenland White-fronted Goose; *Anser albifrons flavirostris*
- Whooper Swan; *Cygnus cygnus*
- Rare plant species

Conservation Objectives

C.224 No specific conservation objectives are available for this site.

Key Vulnerabilities

C.225 Refer to key vulnerabilities for Lough Iron SPA.

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