



A CROSS CHECK OF SAFEGUARDS
FOR BIRDS & OTHER BIODIVERSITY
WITHIN IRELAND'S FORESTRY
PROGRAMME 2014 – 2020

2019

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A report by

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THE STATE AID DECISION OF IRELAND'S FORESTRY PROGRAMME 2014 – 2020

BIRDWATCH IRELAND'S CROSS CHECK OF SAFEGUARDS FOR BIRDS & OTHER BIODIVERSITY

1. Executive Summary

1. The Forestry Programme 2014-2020¹ is funded by the Irish Government. Its purpose is to provide just under €200m to support afforestation, native woodlands, agro-forestry and forestry for fibre.
2. BirdWatch Ireland presents information in this report which shows the Programme as it is currently constructed is a high risk to birds and other biodiversity because major safeguards for these interests are missing.
3. We support these claims with specific cases such as the declining trends in protected species such as Hen Harriers, the lack of safeguards for High Nature Value farmland and the on-going loss of Ireland's High Ecological Status Rivers.
4. The European Commission approved the Irish programme in 2014 having concluded that it was compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union². However, within the State Aid Decision of Ireland's Forestry Programme 2014 – 2020 (39783 (2014/N))³ eighty-nine conditions were laid down by the Commission to which the programme must comply. This includes **twelve environmental safeguards** relating to National and EU environmental law.
5. Within this report we have identified key pieces of environmental legislation and regulations with which Ireland's current Forestry Programme 2014-2020 is non-compliant.
6. The evidence presented in this report contradicts the conclusion of the Forestry Programme 2014-2020 own Strategic Environmental Assessment (SEA)⁴ and Natura Impact Statement (NIS)⁵ reports, namely that there would be no significant adverse or residual impacts on the environment post mitigation. These conclusions were based on inaccurate assumptions about the implementation of the Forestry Programme. This included the assumption that adequate ecological assessments would be carried out and that the recommendations of the SEA and NIS relating to monitoring and mitigation measures would be implemented.
7. As further context existing evidence shows State funded afforestation and silviculture in Ireland are already having a significant adverse impact on biodiversity inside and outside of protected areas (including Natura 2000 sites) and across both terrestrial and freshwater

¹ Forest Service (2015) Forestry Programme 2014-2020; Forest Service, Department of Agriculture, Food and the Marine Ref: IRL-DAFM-FS.023 <http://bit.ly/2k1nvc5>

² European Commission (2012) Treaty on European Union and the Treaty on the Functioning of the European Union 2012/C 326/01: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E>

³ State aid/Ireland Forestry Programme 2014 – 2020: Ireland SA. 39783 (2014/N) – IRL Afforestation and Creation of Woodlands <http://bit.ly/2AC08he>

⁴ Davie, H & Michael, I (2014) Ireland's Forestry Programme 2014-2020 Strategic Environmental Statement (SEA); ADAS UK Ltd, 4205 Park Approach, Thorpe Park, Leeds LS15 8GB <http://bit.ly/2iv14vE>

⁵ Davies, H (2014) Ireland's Forestry Programme 2014-2020, Appropriate Assessment (AA), Natura Impact Statement ADAS UK Ltd 11D Milton Park Milton Abingdon Oxfordshire OX14 4RS <http://bit.ly/2AAWDr6>

habitats in Ireland. Outcomes for birds and other biodiversity from previous Irish programmes have been poor.

8. The current Forestry Programme is not in line with Irelands obligations under the Rural Development Regulations⁶ or the State Aid Decision of the Afforestation and Creation of Woodlands Scheme.

In conclusion, BirdWatch Ireland calls on the European Commission to urgently scrutinise the current Forestry Programme for compliance with the conditions laid down within the state-aid decision and the internal market. We specifically call on the Commission to examine the compliance of the Irish Forestry Programme in relation to the twelve environmental safeguards within the state-aid decision, with specific reference to National and EU environmental law.

Table 1: The compliance of the Forestry Programme 2014-2020 with key Environmental legislation and the State Aid Decision			
Failure	Legislation	Section of the Report	State Aid Decision
The failure to protect Annexed birds and habitats within Natura 2000 sites from the negative impacts of afforestation and silviculture.	Birds Directive: Article 2, Article 4 (1), Article 4 (2), Article 5	Section 6.1.1	These legal breaches conflict with points 13, 34, 35, 36, 40, 56 of the State Aid Decision
	Habitats Directive: Article 6(3) and Article 6(4) of the Habitats Directive.		
The failure to protect birds and their habitats within the wider countryside from the negative impacts of afforestation and silviculture	Birds Directive: Article 1, Article 2, Article 3, Article 4(4),	Section 6.1.2	These legal breaches conflict with points 13, 34, 36, 40, 56 of the State Aid Decision
	Habitats Directive: Article 3(3) and Article 10		
The failure to protect the water quality and ecological status of water bodies from the negative impacts of afforestation and silviculture	Article 4 of the Water Framework Directive	Section 6.2	These legal breaches conflict with points 13, 34, 35, 40, 56 of the State Aid Decision.
	Article 6(3) and Article 6 (4) of the Habitats Directive		
The failure to protect High Nature Value farmland from the negative impacts of afforestation and silviculture	Article 6 of the supplementing regulations of the Rural Development Regulations (No. 1305/2013)	Section 6.3	These legal breaches conflict with points 13, 36, 40, 56 of the State Aid Decision

⁶ European Commission (2013) Regulation (EU) No 1305/2013 of the European Parliament and of the Council (2013) on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005 <http://bit.ly/2s2X3lg>

2. Introduction

The purpose of this document is to outline the numerous ways in which the design and implementation of the current Forestry Programme 2014-2020¹ is non-compliant with national and EU legislation relating to the conservation of biodiversity. Where we have identified cases of non-compliance we have linked these to the EU's underlying Policy Framework and in particular the State Aid Decision on Ireland's Forestry Programme 2014 – 2020 (SA. 39783 (2014/N)) – IRL Afforestation and Creation of Woodlands³.

A desk-based analysis of the EU Policy Framework underpinning the approval of the current Forestry Programme was carried out. This included an examination of the Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth⁷ and the Rural Development Regulations⁶. A review of the existing environmental safeguards within the afforestation approvals system was completed through a desk-based analysis of relevant Forest Service guidelines. This included the documents which the Commission had indicated as underpinning the environmental aspects of the state aid decision including Ireland's Prioritised Action Framework (PAF) for NATURA 2000⁸ and the Code of Best Forest Practice – Ireland⁹ and to the national environmental guidelines which are laid down within the Forestry Standards Manual (2015)¹⁰, Environmental Requirements for Afforestation (2016)¹¹ and the Land Types for Afforestation Document (2016)¹². In addition to this a meeting was held with staff of the Environment Division of the Forest Service to discuss the strengths and weaknesses of the current environmental safeguards within the afforestation approvals process.

Following this a desk-based study was carried out on the existing scientific research of the known impacts of afforestation and silviculture on both terrestrial and freshwater biodiversity in Ireland. A focus was placed on bird species which are known to be particularly affected by Ireland's afforestation policies. Important sources of information included reports from Irish governmental bodies such as the National Parks and Wildlife Service and the Environmental Protection Agency as well as research carried out by environmental NGO's such BirdWatch Ireland and research institutes. Based on the identified negative impacts of Irish forestry on biodiversity we were able to pinpoint instances of non-compliance with environmental legislation including the Birds Directive (Directive 2009/147/EC)¹³, the Habitats Directive (Directive 92 /43 /EEC)¹⁴, the Water Framework Directive (2000/60/EC)¹⁵ and EU regulations relating to the protection of High Nature Value farmland. We were then able to link these cases of non-compliance back to the environmental safeguards within the State Aid Decision. In this way we have been able to demonstrate that the current Forestry Programme is not aligned with Irelands legal obligations under the Rural Development Regulations or the State Aid Decision of the Afforestation and Creation of Woodlands Scheme. To further

⁷ European Commission (2010) Europe 2020: A strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final <http://bit.ly/1efDWuz>

⁸ Department of Arts, Heritage and the Gaeltacht (2014) A Prioritised Action Framework (PAF) for NATURA 2000 EU Multiannual Financing Period 2014-2020 Ireland <http://bit.ly/2iZuBS3>

⁹ Forest Service (2000) Code of Best Forest Practice – Ireland; Department of the Marine and Natural Resources, Leeson Lane, Dublin 2, Ireland <http://bit.ly/2BQstQX>

¹⁰ Forest Service (2015) Forest Standards Manual; Forest Service, Department of Agriculture, Food & the Marine, Ireland; Department of Agriculture, Food & the Marine Johnstown Castle Estate Co. Wexford <http://bit.ly/2BQj2kL>

¹¹ Forest Service (2016) Environmental Requirements for Afforestation, Forest Service, Department of Agriculture, Food & the Marine, Ireland, Johnstown Castle Estate, Co. Wexford <http://bit.ly/2j0SSa9>

¹² Forest Service (2016) Land Types for Afforestation; Forest Service, Department of Agriculture, Food & the Marine, Ireland, Johnstown Castle Estate, Co. Wexford <http://bit.ly/2B4Gpdb>

¹³ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds <http://bit.ly/2s2X3lg>

¹⁴ Directive 92 /43 /EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora <http://bit.ly/2jji8pe>

¹⁵ Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy <http://bit.ly/2AxzIVa>

support our arguments, we have identified where issues which we have highlighted were also highlighted in the SEA and NIS of the current Forestry Programme but were not subsequently addressed.

3. Policy Analysis

3.1 Afforestation Scheme

The aim of the Forestry Programme 2014-2020 is to increase the forest cover area in Ireland, from its current level of 10.7% towards a target of 18% forest land cover by 2046. To achieve this the Department of Agriculture Food and the Marine (DAFM) have set an afforestation target of 10,000ha per annum up to 2015 and 15,000 ha per annum for the period 2016 to 2046¹⁶. Over the life of the current Forestry Programme it is proposed that over 46,000 ha of new forests will be established involving 25,000 participants¹. The expansion of the national forest estate will occur on an ad hoc basis through the afforestation of private landholdings¹. This poses a serious challenge in predicting and controlling the negative impacts of such a fundamental land use change on the socio-economic and environmental functioning of affected areas. The ongoing scale of land use change, the sensitivity of the areas which are being planted and the nature of the forestry being established means that the potential exists for significant negative impacts on biodiversity and water quality. It is vital that that Forest Service as the National consenting authority for afforestation ensure that afforestation and silvicultural management are undertaken in a sustainable and legally compliant way.

3.2 EU Policy Framework

At an EU level, it has been recognised that economic development must not come at the expense of social or environmental sustainability. All Union policies including those such as forestry which fall under rural development are expected to contribute to the objectives and targets of ‘*Europe 2020, A Strategy for Smart, Sustainable and Inclusive Growth*’.⁷ Sustainable growth as defined within this strategy means promoting a more resource efficient, greener and more competitive economy which will help the EU to prosper in a low-carbon, resource constrained world while preventing environmental degradation, biodiversity loss and unsustainable use of resources¹⁷. This Common Strategic Framework underpins the EU’s structural investment funds including the Rural Development Policy¹⁸. While Ireland’s Forestry Programme is State Aid funded and therefore not part of the Rural Development Programme it must still be in line with the Rural Development Regulations (RDR)¹⁹ for it to be consistent with the rules of the internal market. Article 5 of the RDR lays down six Union priorities for rural development as the instruments to implement the Europe 2020 objective of sustainable growth. It also outlines how the fourth priority of the RDR i.e. ‘*Restoring, preserving and enhancing ecosystems related to agriculture and forestry*’ should be achieved (Table 2).

Table 2: Article 5(4) on Restoring, preserving and enhancing ecosystems related to agriculture and forestry, with a focus on the following areas¹⁹:

¹⁶ Department of Agriculture, Food and the Marine (2014) Forests, products and people. Ireland’s forest policy – a renewed vision. Department of Agriculture Food and the Marine, Dublin.

¹⁷ Communication from the Commission Europe 2020 A strategy for smart, sustainable and inclusive growth (2010) <http://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52010DC2020&from=en>

¹⁸ European Commission (2013) Regulation (EU) No 1305/2013 of the European Parliament and of the Council <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1305&from=EN>

- (a) restoring, preserving and enhancing biodiversity, including in Natura 2000 areas, and in areas facing natural or other specific constraints, and high nature value farming, as well as the state of European landscapes;
- (b) improving water management, including fertiliser and pesticide management;
- (c) preventing soil erosion and improving soil management.

3.3 Environmental Protection and the State Aid Decision

In February 2015, The European Commission informed Ireland that it had approved the State aid scheme for the Afforestation and Creation of Woodlands Scheme³, which is part of the Irish Forestry Programme 2014 – 2020¹. The scheme aims to provide support for afforestation, in the form of establishment cost and fifteen annual premium payments and is divided in four sub-schemes:

(a) Afforestation Scheme; (b) Native Woodland Establishment Scheme; (c) Agro-Forestry Scheme and (d) Forestry for Fibre Scheme. The Commission approved the scheme having concluded that it was compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union¹⁹. Eighty-nine conditions were laid down by the Commission to which the Irish Forestry Programme 2014-2020 must comply. This included twelve environmental safeguards including links to National and EU environmental law as conditions to approval (Table 3).

Table 3: Environmental Conditions within the State aid scheme for the Afforestation and Creation of Woodlands Scheme

Afforestation Scheme	
13	Projects must be undertaken in compliance with national and EU legislation. Only projects which receive prior written approval from the Department of Agriculture, Food and the Marine, and are undertaken in compliance with sustainable forest management and any specific conditions of approval, will be eligible for support.
Native Woodland Establishment Scheme	
22	The scheme is a key biodiversity measure within Ireland’s national forest policy, by supporting a wide range of other benefits and functions arising from native woodlands, relating to reversing wider habitat fragmentation, the protection and enhancement of water quality, landscape, cultural heritage, wood and non-wood products and services, the practice of traditional woodland management techniques, environmental education, and carbon sequestration.
23	The scheme will increase the area of native woodland within Ireland and will introduce a forestry land use option for farmers in environmentally sensitive areas, promoting the use of native woodland creation to deliver wider ecosystem services such as water quality, soil stabilisation and habitat connectivity.
24	For environmental purposes, strict adherence to the Native Woodland Establishment Site Appraisal Framework will apply for this scheme.
Common features to all schemes	
34	All afforestation under the four sub-schemes will require consent from the Forest Service in order to ensure that the site is suitable. Afforestation will be avoided on environmentally unsuitable sites. Afforestation will be adapted to environmental sensitivities, such as habitats and species (including NATURA sites, Freshwater Pearl Mussel and Hen Harrier), water quality (including fisheries sensitive areas, waterbody status, acid sensitive areas), archaeology, landscape, and local sensitivities.
35	The measure will comply with Natura 2000 management plans or, in the absence thereof, with the general conservation objectives of the sites (non-deterioration of the sites as a minimum requirement).
36	The inappropriate afforestation of sensitive habitats such as peat lands and wetlands will be avoided, as well as the negative effects on areas of high ecological value including areas under high natural value farming.
38	It will be a requirement of all applications submitted for approval to contain at least 10% of the area with broadleaved and native species which may be planted in areas adjacent to watercourses or in areas to maximise landscape impacts. At national level, Ireland aims to achieve a target of 30% broadleaves.
40	The environmental requirements and the ecological infrastructure will be considered in a coherent and integrated manner, in order to achieve the indicated environmental aims in relation to soil and water quality, biodiversity and ecosystems protection.
Objective of common interest	

¹⁹ Treaty on European Union and the Treaty on the Functioning of the European Union 2012/C 326/01: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E>

56	In line with point 52 of the Guidelines, the Irish Authorities have assessed the environmental impact of the schemes, demonstrating that the aid measure does not result in an infringement of applicable Union environmental protection legislation. The Irish Authorities foresee protection measures to respect environmental sensitivities, including the protection of habitats and species (including NATURA sites, Freshwater Pearl Mussel and Hen Harrier), water quality (including fisheries sensitive areas, water body status, acid sensitive areas), archaeology, landscape, and local sensitivities. The capacity of the site to support a forest is also taken into consideration, via factors such as site fertility, elevation and exposure, and access.
Specific assessment according to the category of aid	
Sub-scheme 1: Afforestation Scheme	
68	The conditions of point 509 of the Guidelines concerning minimum environmental requirements are met, as set out in points 34 to 40 of the description above. Species planted will be adapted to the environmental and climatic conditions of the area and comply with minimum environmental requirements.
Sub-scheme 2: Native Woodland Establishment Scheme	
73	The conditions of point 509 of the Guidelines concerning minimum environmental requirements are met, as set out in points 34 to 40 of the description above. Species planted will be adapted to the environmental and climatic conditions of the area and comply with minimum environmental requirements.

4. Existing Environmental Safeguards within the Afforestation Approvals System

As the consenting authority for afforestation, the Forest Service of the Department of Agriculture, Food & the Marine must ensure that afforestation and the management of the national forest estate is compliant with the EU's policy framework including the state aid decision and national and European environmental legislation. The Commission indicated that the State Aid Decision was underpinned by a number of documents including Ireland's Prioritised Action Framework (PAF) for NATURA 2000⁸ and the Code of Best Forest Practice – Ireland²⁰, together with the adherence to the principles of Sustainable Forest Management (SFM) and to the national environmental guidelines which are laid down within the Forestry Standards Manual (2015)¹⁰, Environmental Requirements for Afforestation (2016)¹¹ and the Land Types for Afforestation Document (2016)¹². The requirements established within these documents must therefore be adhered to. The latter three documents provide the guidance and operational requirements for the foresters and the forest service staff who implement afforestation. The standards and specifications set out in these documents indicate the minimum acceptable environmental standard which can be grant aided under the afforestation grant scheme.

*The Land Types for Afforestation Document*¹² sets out the potential eligibility of land for support under the Afforestation Scheme, based on the capability of that land to produce a sustainable commercial crop of timber. Foresters identify land types capable of being grant aided using a ground vegetation assessment. This approach inadvertently protects some Annex I habitats under the Habitats Directive such as peatlands; they are identified as being unsuitable for afforestation due to their low phosphorus and nitrogen levels or due to their high-water table. An element of environmental protection is therefore afforded to habitats like wet heath, dry heath, raised bog and blanket bog. These are, as we have previously noted, habitats which have historically suffered from afforestation in Ireland.

*The Forestry Standards Manual*¹⁰ in combination with the Environmental Requirements for Afforestation Document¹¹ lays down the silvicultural and environmental requirements of afforestation. The Forestry Standards Manual (FSM)¹⁰ directly implements elements of the Habitats Directive, the Birds Directive, The Water Framework Directive and Ireland's domestic conservation

²⁰ Collins, K.D. et al (2000) Code of Best Forest Practice – Ireland, Forest Service, Department of the Marine and Natural Resources, Leeson Lane, Dublin 2, Ireland <http://bit.ly/2BQstQX>

legislation the Wildlife Act, 1976²¹ the Wildlife (Amendment) Act, 2000²² and the European Communities (Birds and Natural Habitats) Regulations 2011²³. It also implements many measures such as the requirement for biodiversity and aquatic setbacks, the retention of Additional Biodiversity Elements (ABE's), and the planting of broadleaf trees which can positively contribute to the sectors environmental footprint and underpin some of the key biodiversity elements of the Forestry Programme.

The Forestry Standards Manual lays down the procedures necessary to identify some potential conflicts with the requirements of the Habitats and Birds Directives. The use of GIS mapping systems ensures that Natura 2000 sites are identified within the approvals process. The Appropriate Assessment Procedure is designed to implement the legal requirements under Article 6(3) and 6(4) of the Habitats Directive. Thresholds exist which facilitate inspectors to implement the requirements of the Environmental Impact Assessment Directive (2011/92/EU)²⁴. District Inspectors are trained in the identification of triggers for mandatory Environmental Impact Assessments (EIA) as well as the carrying out of sub-threshold EIA screenings. These procedures along with the use of trained and registered foresters and forestry inspectors, a penalty schedule, and a system governing the register of foresters and forestry companies and other certification processes (e.g. payment inspections, premium) lay down some environmental safeguards. The referral of relevant applications to prescribed bodies for biodiversity conservation such as the National Parks and Wildlife Service, An Taisce and Inland Fisheries Ireland improve the transparency and accountability of the system. This is further strengthened by the existence of an appeals process. The public may also make submissions in response to afforestation applications. However, the system in place is not user friendly and it would be difficult for the public to know when or where afforestation may take place. The use of the Forest Service's ecologist greatly improves the standard of ecological oversight for individual applications. Although as we will discuss later there is only one full time ecologist within the Forest Service so only a small fraction of applications can ever be subjected to assessment by a professional ecologist. Given the number of applications which are active nationally at any one time, the ecologist can only influence a small fraction of them.

These environmental safeguards within the FSM are on paper sensible and essential for the proper implementation of environmental legislation. Table 4 (within the annex) contains a summary of some of the key biodiversity safeguards within the FSM.

*The Environmental Requirements for Afforestation*¹¹ document supports the environmental safeguards within the Forestry Standards Manual. The document brings together and updates some guidelines and requirements which had been developed to protect the environment, water quality, biodiversity, archaeology and landscape; namely the Forestry & Water Quality Guidelines²⁵, Forestry

²¹ Wildlife Act, 1976 <http://bit.ly/2krvsLk>

²² Wildlife (Amendment) Act, 2000 <http://bit.ly/2B5U6Zo>

²³ European Communities (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011 <http://bit.ly/2nvRsG0>

²⁴ EIA Directive (2011/92/EU) 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) <http://bit.ly/2AvUE9I>

²⁵ Forestry and Water Quality Guidelines (2000) Forest Service, Department of the Marine and Natural Resources, Department of Agriculture, Food & the Marine Johnstown Castle Estate Co. Wexford <http://bit.ly/2ilWhxa>

& Archaeology Guidelines²⁶, Forestry & the Landscape Guidelines²⁷, and Forest Biodiversity Guidelines²⁸.

The document lays down updated guidelines for the protection of water quality and aquatic biodiversity. This includes site specific water setbacks, guidance on drainage and cultivation, water crossings and fertiliser application. From a biodiversity perspective, there is a focus on ensuring that afforestation and silvicultural management does not adversely impact designated conservation areas, protected habitats, or protected species of fauna and flora and their habitat. The requirements are designed to ensure legal compliance with the obligations relating to the protection of designated sites under the Habitats Directive (SAC/cSAC), Birds Directive (SPA/pSPA) and the Wildlife Acts (NHA/pNHA). Additional measures such as the requirement for habitat setbacks and the use of Additional Biodiversity Areas (ABA) are designed to minimise the impact of afforestation on important on-site biodiversity features.

Table 5: Specific conservation safeguards which are linked to Irish and European legislation

Foresters and Forestry Inspectors must identify if the application has the potential to impact on a designated site. If so the Appropriate Assessment Procedure must be followed to ensure compliance with Article 6(3) and 6 (4) of the Habitats Directive.

According to the requirements, Annex I habitat under the Habitats Directive should not be afforested within designated sites. In non-designated areas foresters must identify habitat listed in Annex I of the Habitats Directive and may be required to carry out an ecological assessment. The protection of undesignated Annex I habitat is linked to the implementation of Article 3 and Article 10 of the Habitats Directive and Article 4 of the Birds Directive which require that members states take steps to prevent the deterioration of habitats and support the coherence of Natura 2000 network.

The afforestation of NHAs, requires the Forest Service to engage with the National Parks & Wildlife from the outset.

There are specific requirements laid down for some species which are covered by the strict protection afforded to Annex IV species under Article 12 of the Habitats Directive. These include specific guidelines for otter, Kerry slug and bats.

There are specific requirements to identify and safeguard populations of Freshwater Pearl Mussel (*Margaritifera margaritifera*) which are designated as Annex II and Annex V species under the Habitats Directive. These are laid down in the *Forestry & Freshwater Pearl Mussel Requirements* which is linked to the European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations (S.I. 296 of 2009).

The Hen Harrier, an Annex I bird species under the Birds Directive is also afforded additional protection due to it being the subject of an ongoing Threat Response Plan under Regulation 39 of the European Commission (Birds & Natural Habitats) Regulations 2011 (SI No. 477). The threat response plan has been initiated partially due to the negative impacts of forestry on its conservation status. There is a government moratorium on new afforestation applications within Hen Harrier SPAs, pending the completion, and publication, of the Threat Response Plan.

The Curlew is a Red Listed Bird of Conservation Concern in Ireland. The Forest Service of the Department of Agriculture, Food & the Marine, has incorporated locations where Curlew have

²⁶ Forest Service (2000), Forestry & Archaeology Guidelines; Forest Service, Department of the Marine and Natural Resources, Department of Agriculture, Food & the Marine Johnstown Castle Estate Co. Wexford <http://bit.ly/2iwFBIM>

²⁷ Forest Service (2000), Forestry & the Landscape Guidelines; Forest Service, Department of the Marine and Natural Resources, Department of Agriculture, Food & the Marine Johnstown Castle Estate Co. Wexford <http://bit.ly/2B6Pdim>

²⁸ Forest Service (2000), Forest Biodiversity Guidelines; Forest Service, Department of the Marine and Natural Resources, Department of Agriculture, Food & the Marine Johnstown Castle Estate Co. Wexford <http://bit.ly/2iYuN3Y>

been recorded during the breeding season, into the Integrated Forest information System (IFORIS). This information is update on an ongoing basis and is used to inform inspectors that Curlew may be nesting on site. The conservation needs of the species should then be taken into account when assessing applications to plant or fell trees within 1km of existing sites or 250m of 'historical' sites. These new measures are a positive step, but there is concern that the level of proposed protection doesn't reflect the known sensitivity of the species to increases in forest cover⁵¹. The buffers are also not adequate and do not consider the need to leave space for population re-establishment and range expansion.

A forester may request the submission of an ecological report if an Annex II species under the Habitats Directive may be impacted by an application. Outside of SACs, these species are protected against damage that impacts their favourable conservation status or ability to achieve that status.

Similarly, a forester may request the submission of an ecological report if a species of flora protected under the Flora Protection Order 2015 may potentially be impacted by the application.

In practice, the protection afforded by the Wildlife Acts to Floral Protection Order species is not likely to be broadly implemented due to the lack of proper floral assessments within the afforestation approvals process and the absence of data on the distribution of FPO species. Protection is further constrained by the difficulty inherent in identifying flowering species outside of their growing season. Forestry inspectors have data on a limited number of small white orchid (*Pseudorchis albida*) populations. These are the only populations of FPO species which are likely to enjoy full protection.

The burning of woody vegetation as a site management tool is regulated under Section 40 of the Wildlife (Amendment) Act 2000, under which it is an offence to cut, grub, burn or otherwise destroy, during the period 1st March to the 31st August inclusive, any vegetation growing on any land not then cultivated.

5. The Negative Impacts of Irish Forestry on Biodiversity

5.1 The Negative Impacts of Irish Forestry on Terrestrial Biodiversity

Ireland is one of the least forested countries in Europe with only about 10.7% of its area under forest cover²⁹. Of this only around 2% of the country is covered by what is termed native or semi-natural woodland, and much of this is highly fragmented and modified³⁰. 72.8% of the national forest estate is made up of non-native conifers, with 52.4% of forestry in Ireland being made up of just one species, Sitka spruce (*Picea sitchensis*)²⁹. It is known that the impact of afforestation on biodiversity will vary across different species and habitats and will be influenced by a range of factors including, the selection of tree species, management intensity, site location and the preceding land-use type/intensity^{31,32,33}. The impact of afforestation in Ireland has been positive for some bird species such as conifer specialists like Crossbill (*Loxia curvirostra*) and Siskin (*Carduelis spinus*)³⁴. The impact of afforestation has been most positive where afforestation replaces high-intensity land use types

²⁹ Forestry-Service (2014), Ireland's Forests Annual Statistics, Wexford: Department of Agriculture, Food and the Marine

³⁰ Perrin, P., Martin, J., Barron, S., O'Neill, F., McNutt, K. & Delaney, A. (2008) National Survey of Native Woodlands, 2003-2008. Unpublished report to the National Parks and Wildlife Service, Dublin.

³¹ Bremer, L. L. & Farley, K.A. (2010) Does plantation forestry restore biodiversity or create green deserts? A synthesis of the effects of land-use transitions on plant species richness. *Biodiversity Conservation* 19, 893–3915. Doi:10.1007/s10531-010-9936-4.

³² Buscardo, E, et al. (2008) The early effects of afforestation on biodiversity of grasslands in Ireland. *Biodiversity and conservation*: 17(5), 1057-1072.

³³ Graham, C T, et al. (2015) Implications of afforestation for bird communities: the importance of preceding land-use type. *Biodiversity and Conservation*: 1-21.

³⁴ Balmer, D et al. (2013) Bird Atlas 2007-11: The Breeding and Wintering Birds of Britain and Ireland

such as improved grassland or increases native woodland cover and connectivity³⁵³⁶³⁷. Afforestation has had a negative impact on open habitat specialists and has benefited woodland specialists least when plantations of non-native conifers are established³⁵. Plantations made up of non-native conifer species like Sitka spruce are known to support a lower diversity and abundance of bird species relative to native tree species; they are also known to support fewer woodland specialist than native woodlands^{36 37}. According to the SEA⁴ of the Forestry Programme 2014-2021 afforestation can reduce extent and quality of habitat and overall biodiversity if planted on protected and/or sensitive grass, heath, wetland and bog habitats. These adverse effects are amplified the greater the size of the coniferous plantation.

The ongoing predominance of intensively managed non-native plantations within Ireland's afforestation scheme and the targeting of open habitats of high conservation value for afforestation³⁸ means that the current forest policy is a major driver of biodiversity loss. In Ireland's most recent report Article 17 report³⁹ to the EU Commission on the conservation status of habitats and species listed in the annexes of the Habitats Directive, forestry ranked as the second greatest pressure and threat on designated habitats and species in Ireland after agriculture. **Almost 40% of designated habitats under the Habitats Directive have forestry as a pressure or threat⁴⁰.**

The designated habitats in Ireland whose conservation status has been most negatively impacted by forestry are open habitats such as peatlands, grasslands, wetlands and coastal habitats⁴⁰. The NPWS have identified that forestry regulations are failing to protect Annex I peatland habitats such as Wet Heath, Dry Heath, Alpine and Sub Alpine Heath, Rhynchosporion depressions and the priority habitat Active Blanket Bog⁴⁰. Annex I habitats which lie outside of designated sites such as Annex I classified Molinia Meadows and the priority habitat Species-rich Nardus grasslands have been particularly badly impacted. Species-rich Nardus grassland for example have been almost completely lost due to afforestation in areas such as the Comeragh Mountains, the Devils Bit Range and the Slieve Blooms⁴⁰.

³⁵ Walsh, P., O'Halloran, J., Kelly, T. & Giller, P. 2000. Assessing and optimizing the influence of plantation forestry on bird diversity in Ireland. *Irish Forest*. 57: 2–10.

³⁶ Iremonger et al. (2006) Investigation of experimental methods to enhance biodiversity in plantation forests. BIOFOREST PROJECT 3.1.3 FINAL REPORT

³⁷ Sweeney, O F M, Wilson, M W, Irwin, S, Kelly, T C, & O'Halloran, J (2010). Are bird density, species richness and community structure similar between native woodlands and non-native plantations in an area with a generalist bird fauna?. *Biodiversity and Conservation*, 19(8), 2329-2342.

³⁸ Farrelly, N and G Gallagher. (2013) Classification of Lands Suitable for Afforestation in the Republic of Ireland. A report commissioned by the COFORD Council Land Availability Working Group (CCLAWG),. Athenry, Co. Galway: Teagasc.

³⁹ NPWS (2013) The Status of EU Protected Habitats and Species in Ireland, Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.

⁴⁰ NPWS (2014) Ireland's Summary Report for the period 2008 – 2012 under Article 12 of the Birds Directive. Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.



Figure 1. The above three images depict lands in Skeagh Townland, Co. Cavan which are adjacent to the Cuilcagh – Anierin Uplands SAC [000584] which show Sitka spruce has been planted on High Nature Value farmland containing a mosaic of juniper scrub, species rich calcareous grassland, heath and blanket bog. Seven orchid species were identified on site including the highly protected Floral Protection Order species Small White Orchid (*Pseudorchis albida*). Orchid-rich calcareous grassland is a priority habitat under the Habitats Directive.

At a species level over 20% of species designated under the Habitats Directive in Ireland have forestry as a pressure or threat⁴⁰. According to the most recent Article 12 report⁴¹ submitted by Ireland to the European Commission pursuant to the Birds Directive, **silviculture / forestry is identified as a pressure / threat which is having a ‘high’ impact on Annex I bird species nationally.** Afforestation and/or forestry management is identified as being a main pressure and threat for Hen Harrier (*Circus cyaneus*), Merlin (*Falco columbarius*), Golden Plover (*Pluvialis apricaria*), Bewicks Swan (*Cygnus columbianus bewickii*), Greenland White-fronted Goose (*Anser albifrons flavirostris*) and Dunlin (*Calidris alpina schinzii*)⁴¹. It is identified as a pressure and threat of high importance for the upland species such as Hen Harrier, Merlin and Golden Plover⁴². According to BirdWatch Ireland’s assessment of the threats affecting bird species within BirdWatch Ireland’s Group Action Plans for Irish Birds⁴³ there are ten priority species which are being impacted by afforestation and subsequent woodland management. Six of these species are Red listed species and three are Amber Listed Birds of Conservation Concern in Ireland (BoCCI)⁴⁴. The SEA⁴ for the Forestry Programme itself admits that some migratory birds and open habitat specialists such as Curlew, Golden Plover, Hen Harrier, Merlin, Lapwing, Red Grouse, and Whinchat may be negatively impacted by afforestation. Species like Skylarks (*Alauda arvensis*) which are an Amber listed species⁴⁵ in Ireland could be added to this list as they favour extensively managed agricultural land and strongly avoid forested habitats⁴⁵. They are being directly impacted by the afforestation of marginal farmland. Research from Scotland also indicates that the abundance of Ring Ouzel (*Turdus torquatus*), which is Red listed in Ireland⁴⁴, has been negatively affected by the afforestation⁴⁶. While research in Ireland reveals

⁴¹ NPWS (2014) Ireland’s Summary Report for the period 2008 – 2012 under Article 12 of the Birds Directive. Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.

⁴² NPWS (2014) Ireland’s bird species’ status and trends for the period 2008-2012. Dublin: National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht.

⁴³ BirdWatch Ireland (2014) BirdWatch Ireland’s Group Species Action Plans for Irish Birds: Prioritisation of actions, species priorities and implementation. BirdWatch Ireland, Kilcoole, Co. Wicklow.

⁴⁴ Colhoun K and Cummins S (2013). Birds of Conservation Concern in Ireland 2014 –2019. Irish Birds. 9: 523–544.

⁴⁵ Copland, A. S., Crowe, O., Wilson, M. W., & O’Halloran, J. (2012). Habitat associations of Eurasian Skylarks *Alauda arvensis* breeding on Irish farmland and implications for agri-environment planning. *Bird study*, 59(2), 155-165.

⁴⁶ Buchanan, G. M., Pearce-Higgins, J. W., Wotton, S. R., Grant, M. C., & Whitfield, D. P. (2003). Correlates of the change in Ring Ouzel *Turdus torquatus* abundance in Scotland from 1988–91 to 1999. *Bird Study*, 50(2), 97-105.

that populations of Hen Harriers and Merlin may not be self-sustaining when levels of forest cover at a landscape level reach 40%⁴⁷ and 35%⁴⁸ respectively.

Species which are reliant on open habitats such as ground nesting upland birds and waders are being worst affected by afforestation⁴². These species are being negatively impacted by direct habitat loss and the fragmentation^{47,48,49} of remaining open habitat; moreover, such fragmented wooded landscapes host high abundance of predators relative to continuous open landscapes increasing the risk of predation⁵⁰. Afforestation is also associated with edge effects on adjacent open ground, by altering habitat configuration and through the association of predators with woodland⁵¹. Because of its short and long-term effects, afforestation has and will continue to have a detrimental impact on many semi-natural habitats, breeding waders and other birds of upland and moorland habitats (particularly red/amber-listed species). Afforestation policy is an imminent threat to threatened species such as Curlew (*Numenius arquata*)^{52,53}. In the 40 years up to 2007–11, the breeding range of Curlew across Ireland has undergone a catastrophic decline of 78%. We estimate that there may have been around 5,000 pairs of Curlew in Ireland in the late 1980s. The population has subsequently undergone a decline of 97% in 40 years. The number of breeding pairs remaining in the Republic of Ireland is so low that the species is now facing national extinction⁵⁴.

Table 6: Priority bird species – bird species considered to be at high risk from changes in land use associated with afforestation. (Season: B = breeding; W = wintering, A = all year; * denotes Annex I species; status (Red, Amber) according to Birds of Conservation Concern in Ireland (BoCCI)⁴⁴.

Species	Season	Status (BoCCI)
UPLAND HABITATS		
Curlew <i>Numenius arquata</i>	B	Red
Dunlin <i>Calidris alpina</i>	B	Red
Golden Plover <i>Pluvialis apricaria</i> *		Red
Lapwing <i>Vanellus vanellus</i>	B	Red
Meadow Pipit <i>Anthus pratensis</i>	A	Red
Red Grouse <i>Lagopus lagopus</i>	A	Red
Redshank <i>Tringa totanus</i>	B	Red
Ring Ouzel <i>Turdus torquatus</i>	B	Red
Twite <i>Carduelis flavirostris</i>	A	Red
Greenland White-fronted Goose <i>Anser albifrons flavirostris</i> *	W	Amber
Hen Harrier <i>Circus cyaneus</i> *	B	Amber

⁴⁷ Irwin, S., Wilson, M., O'Donoghue, B., O'Mahony, B., Kelly, T., & O'Halloran, J. (2012). Optimum scenarios for Hen Harrier conservation in Ireland. Cork: Department of Agriculture, Food and the Marine by the School of Biological, Earth and Environmental Sciences, University College Cork.

⁴⁸ Lusby, J., Corkery, I., McGuinness, S., Fernández-Bellón, D., Toal, L., Norriss, D., ... & Quinn, J. L. (2017). Breeding ecology and habitat selection of Merlin *Falco columbarius* in forested landscapes. *Bird Study*, 1-10.

⁴⁹ Pearce-Higgins, J.W., Grant, M.C., Robinson, M.C. & Haysom, S.L. 2007. The role of forest maturation in causing the decline of Black Grouse *Tetrao tetrix*. *Ibis* 149: 143–155. doi: 10.1111/j.1474-919X.2006.00623.x

⁵⁰ Ainsworth, G., et al., 2016. Understanding Predation A review bringing together natural science and local knowledge of recent wild bird population changes and their drivers in Scotland, Edinburgh: Scotlands Moorland Forum.

⁵¹ Douglas, D J T., et al. (2014) Upland land use predicts population decline in a globally near threatened wader. *Journal of Applied Ecology* (2014): 194–203.

⁵² Buscardo, E., et al. (2008) The early effects of afforestation on biodiversity of grasslands in Ireland. *Biodiversity and conservation*: 17(5), 1057-1072.

⁵³ Franks, S., et al., (2017): Environmental correlates of breeding abundance and population change of Eurasian Curlew *Numenius arquata* in Britain, *Bird Study*, DOI: 10.1080/00063657.2017.1359233

⁵⁴ Donaghy, A., (2016) Breeding Curlew Survey 2016: Results from Sligo, Leitrim, Cavan and Monaghan & East Galway, Roscommon, Offaly and Longford (Excluding the Shannon Callows). Unpublished report to National Parks and Wildlife Service. BirdWatch Ireland 2016

Red-throated Diver <i>Gavia stellata</i> *	B	Amber
Skylark <i>Alauda arvensis</i>	A	Amber
Snipe <i>Gallinago gallinago</i>	A	Amber
Stonechat <i>Saxicola torquata</i>	A	Amber
Wheatear <i>Oenanthe oenanthe</i>	B	Amber
LOWLAND FARMLAND & GRASSLAND HABITATS		
Curlew <i>Numenius arquata</i>	B	Red
Lapwing <i>Vanellus vanellus</i>	B	Red
Redshank <i>Tringa totanus</i>	B	Red
Twite <i>Carduelis flavirostris</i>	A	Red
Greenland White-fronted Goose <i>Anser albifrons flavirostris</i> *	W	Amber
Skylark <i>Alauda arvensis</i>	A	Amber
Snipe <i>Gallinago gallinago</i>	A	Amber
WOODLAND & SCRUB HABITATS		
Hen Harrier <i>Circus cyaneus</i> *	B	Amber
FRESHWATER AQUATIC & RIPARIAN HABITATS		
Common Scoter <i>Melanitta nigra</i>	B	Red
Red-throated Diver <i>Gavia stellata</i> *	B	Amber



Figure 2. Lands in Gowland Townland, Toam, Co. Cavan which supported a mosaic of rough grassland dominated by *Molinia caerulea* and heath habitat. The site provided suitable foraging habitat for upland raptors such as Hen Harrier and Merlin. The site was afforested with Sitka spruce.

Given the threat posed by afforestation to biodiversity, many Irish studies have recommended that future planting should be targeted on improved grassland and should avoid peatland and unimproved grasslands which support bird communities of high conservation value⁵⁵⁵⁶⁵⁷.

Current afforestation policies are a primary driver of terrestrial biodiversity loss in Ireland³⁹. The scale of the impacts on both habitats and species will only intensify moving forward as afforestation is, according to Government policy going to be targeted primarily on marginal farmland with low agricultural output⁵⁸. This will have a disproportionate impact on biodiversity at a regional and national scale as there is a strong correlation between sites of low agricultural intensification and

⁵⁵ Smith, G. F., et al., (2006) Biodiversity Assessment of Afforestation Sites, BIOFOREST Project Report

⁵⁶ Graham, C. T. et al., 2015. Implications of afforestation for bird communities: the importance of preceding land-use type. Biodiversity and Conservation, pp. 1-21.

⁵⁷ Walsh, P. M., O'Halloran, J., Kelly, T. C. & Giller, P. S. (2000). Assessing and optimising the influence of plantation forestry on bird diversity in Ireland. Irish Forestry

⁵⁸ Farrelly, N., & Gallagher, G. (2015). The potential availability of land for afforestation in the Republic of Ireland. Irish Forestry.

high conservation value in both terrestrial and freshwater environments^{59,60}. This strong overlap between newly planted forests and threatened species has already been established for Birds of Conservation Concern in Ireland (BoCCI)⁶¹. Resulting negative impacts on already threatened Red and Amber listed birds are predicted.

5.2 The Negative Impacts of Irish Forestry on Freshwater Biodiversity

According to the latest draft River Basin Management Plan for Ireland (2018-2021) forestry is a significant pressure on water quality and freshwater biodiversity at a national level⁶². Pressures related to forestry are increased acidification, sedimentation and eutrophication⁶³. These impacts are largely associated with clear-felling, drainage, and forestry planting and establishment. The significant pressures are predominantly located in catchment headwaters in our uplands⁶⁴. The Forestry Programme 2017-2021 is a significant threat to Ireland's ability to achieve compliance with our obligations under the Water Framework Directive (WFD) and the Habitats and Birds Directives. According to Ireland's River Basin Management Plan for Ireland (2018-2021)⁶² of the water bodies at risk of not meeting their objectives under the WFD, forestry is the fourth most significant pressure impacting on 16% (183) of at risk sites nationally. In the case of river and lake water bodies at risk of not meeting their good ecological status objective, forestry is a significant pressure in 11% (23) of water bodies. **More worrying however, of the 130 river and lake water bodies that are at risk of not meeting their high ecological status objective, forestry is the greatest pressure nationally impacting on 31% (40) of these water bodies**⁶². This is not surprising given that state forestry has since the 20th century been promoted in areas with marginal land and low agricultural productivity⁶⁵ resulting in a strong overlap between the distribution of forestry and high ecological status waterbodies (Figure 3). Many of these sites are in upland or Western counties where the predominance of peat soils increases the likelihood of water quality impacts.

High ecological status waterbodies are important as indicators of largely undisturbed conditions and reflect natural background status or only minor distortion by anthropogenic influences⁶⁶. These are the reference sites from which all other sites are compared in order to estimate an Ecological Quality Ratio (EQR) based on observed state compared with reference. High status sites are important in this regard in that they provide a baseline against which monitored sites can be compared⁶⁷. Many high-status sites are also protected under the Habitats and Birds Directives due to the presence of important water-dependent habitats and species. Where these designations overlap Ireland is legally

⁵⁹Moran, J. and Sullivan, C. (2017) Co-benefits for Water and Biodiversity from the Sustainable Management of High Nature Value Farmland.

⁶⁰Matin, S., Sullivan, C.A., Ó hÚallacháin, D., Meredith, D., Moran, J., Finn, J.A. and Green, S (2016) Map of High Nature Value farmland in the Republic of Ireland. *Journal of Maps* 12: 373–376.

⁶¹Corkery, I, et al. (2015) Overlap of afforestation and birds of conservation concern on farmland habitat. Teagasc Biodiversity Conference 2015. Ed. D Ó hUallacháin and J Finn. Wexford: Teagasc, 2015. 74-75.

⁶²Department of Housing, Planning, Community and Local Government (2017) Draft River Basin Management Plan for Ireland (2018-2021), Dublin: Department of Environment, Heritage and Local Government

⁶³Hutton, S., Harrison, S. & O'Halloran, J., 2008. An evaluation of the role of forests and forest practices in the eutrophication and sedimentation of receiving waters, Dublin: Department of Environment, Heritage and Local Government

⁶⁴EPA (2015) Water Quality in Ireland 2010-2012, Dublin: Environmental Protection Agency, PO Box 3000, Johnstown Castle, Co.Wexford, Ireland.

⁶⁵Department of Agriculture Food and the Marine (2008) Irish Forestry A Brief History <https://www.agriculture.gov.ie/media/migration/forestry/forestservicgeneralinformation/abouttheforestservice/IrishForestryAbriefhistory200810.pdf>

⁶⁶Ní Chatháin, B., Moorkens, E. & Irvine, K. (2012) Management Strategies for the Protection of High Status Water Bodies, Wexford: Department of Environment, Community and Local Government.

⁶⁷Irvine, K. & Ní Chuanigh, E. (2010). Management Strategies for the Protection of High Status Water Bodies. A Literature Review, Wexford: Environmental Protection Agency .

required to prevent a deterioration in water quality under both the WFD and Habitats and Birds Directives.

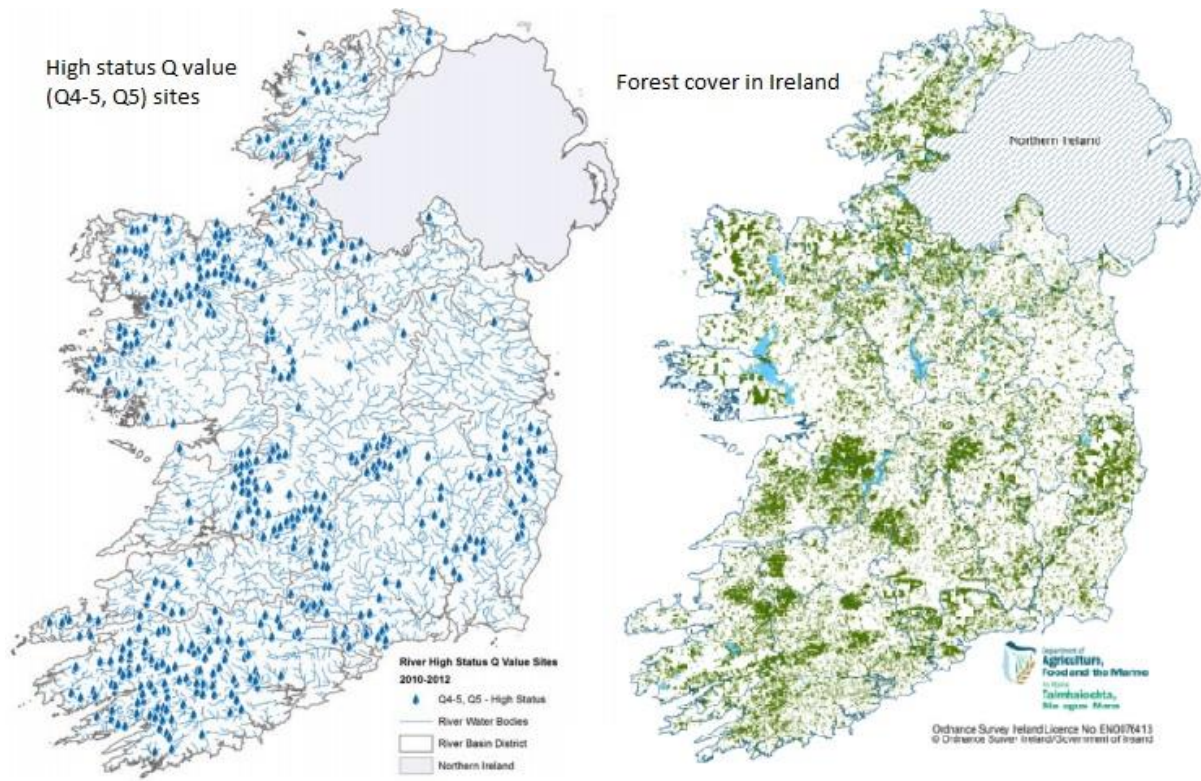


Figure 3: Left - Map showing the location of high status (Q4 - Q5) sites⁶⁴. Right – Forest Cover in Ireland⁶⁸. Note the overlap between distribution of high status sites and forestry.

⁶⁸ Forest Service (2017), Ireland Forest Cover, Forest Service, Department of Agriculture Food and the Marine, Johnstown castle Estate, County Wexford, Ireland <http://bit.ly/2kt3YFm>



Figure 4. Lands in Arduns, Gweedore, Co. Donegal where Lodgepole Pine (*Pinus contorta*) was planted on blanket bog. Negative water quality impacts are an ongoing issue at this site. Photograph by Fintan Kelly

Only five (11%) of Ireland's water-dependent habitats are deemed to be at Favourable Conservation Status, while only eleven (50%) water dependent species are at Favourable Conservation Status⁴¹. The loss of high ecological status is a critical conservation issue for Ireland's internationally important populations of freshwater pearl mussel (*Margaritifera margaritifera*) the endemic subspecies the Nore freshwater pearl mussel (*Margaritifera durrovensis*) and the Atlantic salmon (*Salmo salar*)⁴¹. The Freshwater Pearl Mussel and the Nore Freshwater Pearl Mussel are listed under Annex II and V of the Habitats Directive while salmon are an Annex II species. These species require high water status and forestry is having a negative impact on their conservation status⁴¹. According to the NPWS both species have bad conservation status with an overall declining trend in conservation status⁴¹. Diffuse pollution to surface waters due to forestry activities are considered as one of the greatest threats to the species⁶⁹ while the loss of high status sites due to forestry and other pressures is a threat and pressure of high importance for salmon⁴¹.

A significant decline in the number of high ecological status river water bodies from 287 in 2007–2009 to 245 in 2010–2015 has occurred⁷⁰. The percentage number of sites assigned to the highest ecological status (Q5) has also continued to decline going from 1.5% (no. 38) of sites in 2007–2009 to 1.0% (no. 27) of sites in 2010–2012 and 0.7% (no. 21) of sites in 2013–2015. In contrast 13.4% of sites were at Q5 status between 1987 and 1990⁷⁰.

⁶⁹ NPWS (2011) A Strategy for Conservation of the Freshwater Pearl Mussel in Ireland <http://bit.ly/2jjMWWz>

⁷⁰ EPA (2017) Water Quality in Ireland Report 2010 – 2015, Environmental Protection Agency, Johnstown Castle Estate, County Wexford, Ireland <http://bit.ly/2AvBtg2>

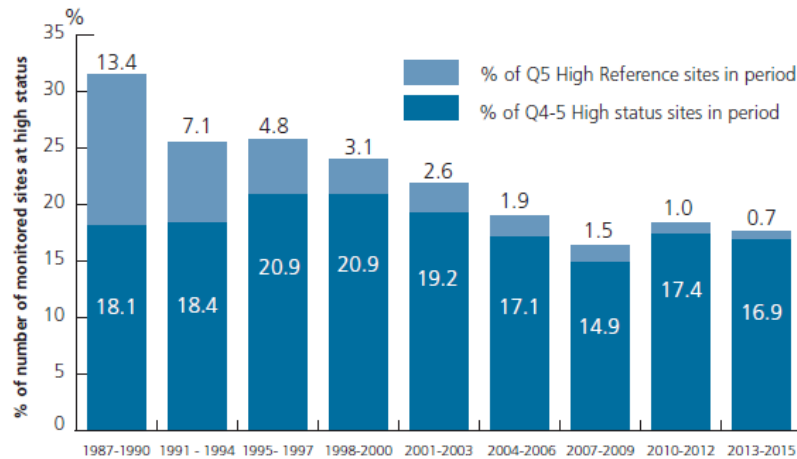


Figure 5. Long term trends (1987 - 2015) in the percentage number of high ecological quality (macroinvertebrate) river sites (Q5 and Q4-5) in each survey period⁷⁰.

6. Examples of Non-Compliance of Afforestation with Environmental Law and the State Aid Decision

Based on the observed negative impacts of afforestation and forestry management on habitats and species both within and outside of protected areas there are clear instances where either gaps in procedures or implementation are resulting in the forestry sector being non-compliant with key environmental laws and regulations. Taking key pieces of European environmental legislation, we have presented examples of non-compliance which we believe require urgent investigation. These are:

- The failure to protect birds within designated sites.
- The failure to protect birds in the wider countryside.
- The Failure to Protect Aquatic Biodiversity.
- The Failure to Protect High Nature Value Farmland.

6.1 The Failure to Protect Internationally Important Birds and their Habitats

6.1.1 The failure to protect birds within designated sites

There are clear obligations under the Birds Directive for member states to protect both Annex I bird species as well as non-annex wild bird species and the habitats they rely upon from deterioration.

- Article 2: All wild birds are protected
- Article 4 (1) requires the designation of protected habitat or Special Protection Areas (SPAs) for the protection of Annex I bird species.
- Article 4 (2) requires that member states also protect habitat for regularly occurring migratory species not listed in Annex I.
- Article 4 (4) requires member states to protect birds from disturbance and their habitats from deterioration within SPAs and to strive to protect bird habitats outside of SPAs.
- Article 5: Lays down a general system of protection for birds, their nest and eggs against intentional damage or disturbance.

Ireland has designated Special Protection Areas (SPAs) for the protection of endangered species of wild birds listed under Annex I of the birds Directive. 154 SPA sites are protected within Ireland encompassing over 570,000 hectares of marine and terrestrial habitats⁷¹.

Within these protected areas Article 4 (4) of the Birds Directive states that member states must take *“appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds.”* Despite the clear obligation on the Forest Service to protect important wild bird habitats from deterioration there are inadequate safeguards and training in place to identify important habitats for wild birds within or outside of the SPA network. Aside from Hen Harrier and Curlew there are no other species-specific measures in place to conserve Annex I birds or listed Birds of Conservation Concern in Ireland within the forestry consent processes. The requirements of Article 6(3) and 6(4) of the Habitats Directive as implemented through the Forest Service’s Appropriate Assessment Procedure should ensure that Annex I bird species and their habitats are protected within SPAs. This is unfortunately not currently the case as the requirements have are not being properly implemented. Foresters and Forestry Inspectors have no guidance on what the direct, indirect and cumulative impacts of afforestation are on specific bird species. No guidance exists on what habitats are important for protected birds. Without this knowledge, it is not possible for an inspector to carry out an appropriate assessment screening or a screening for an Environmental Impact Assessment. This knowledge gap should be addressed when a qualified ecologist is engaged to carry out a Natura Impact Statement or an Environmental Impact Assessment; however poor screening decisions preclude this necessary ornithological and ecological input. The NPWS should identify the need to carry out screenings and NIS’s however issues with staffing and funding sometimes compromise their ability to deliver upon these statutory responsibilities⁷². Whatever the reason, poorly informed screening decisions are resulting in the systemic failure to implement Article 6(3) and 6(4) of the Habitats Directive and the first sentence of Article 4(4) of the Birds Directive.

The failure of the forestry sector to carry out AA’s has been highlighted as a Habitats Directive compliance issue right across the EU⁷³. The reasons for non-compliance in Ireland may be motivated by a concern about the constraints that legal compliance would place on the sector. Alternatively, there may be a genuine lack of understanding of the legislation. Either way given the established impacts of forestry and the low threshold laid down by EU case law such as the Waddenzee judgment (C- 127/02)⁷⁴ regarding the trigger for appropriate assessment, screenings for AA and full AA should be carried out for afforestation applications in many Irish Natura 2000 sites. In our opinion it is should not be possible for a forestry inspector to screen out the need to carry out an AA within an SPA which is designated for birds which are known to be negatively impacted by afforestation (e.g. ground nesting raptors and waders) without carrying out site specific habitat and ornithological assessments.

⁷¹ NPWS (2017) Special Protection Areas, National Parks and Wildlife Service, October 2017 <https://www.npws.ie/protected-sites/spa>

⁷² NPWS (2015) Consultation response: Evaluation study to support the FitnessCheck of the Birds and Habitats Directives <http://bit.ly/2AJDM02>

⁷³ Sundseth, K. & Roth, P. (2013) EC Study on evaluating and improving permitting procedures related to Natura 2000 requirements under Article 6.3 of the Habitats Directive 92/43/EEC. Ecosystems LTD, Brussels under contract N° 07.0307/2012/623211/SER/B3 <http://bit.ly/2zziDkW>

⁷⁴ Judgment of the Court (Grand Chamber) of 7 September 2004. Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij <http://bit.ly/2AevpKe>



Figure 6. A Hunting Hen Harrier. Hen harriers are protected under the Birds Directive, yet they are threatened in many parts of Ireland due to pressures associated with forestry, agricultural intensification and windfarm development. Photograph by Neill O'Reilly.

Case Study: Ireland's Failure to Protect Hen Harriers from Afforestation

One of the best examples of the failure of the existing protocols and/or their implementation to safeguard Ireland's Natura 2000 network comes from the case of Ireland's Hen Harrier population. The Hen Harrier is Ireland's rarest resident breeding Annex I bird species. It is also one of Ireland's best studied bird species with data on breeding hen harrier populations going back 20 years. A comparison of Hen Harrier numbers in survey areas covered across all four national surveys carried out since 1998-2000, indicates an observed population decline of 33.5%; and a 52% decline in estimated breeding pairs over the last 40yrs^{75,76}. Within the six SPAs designated for the species there has been a 27% breeding population decline between 2005 and 2010^{73,74}.

Hen Harriers are traditionally reliant on open upland and extensive farming habitats for both breeding and foraging⁷⁷. The main threat identified by the NPWS for each of the six SPAs is further afforestation: "*The main threat to the long-term survival of Hen Harriers within the site is further afforestation, which would reduce and fragment the area of foraging habitat, resulting in possible reductions in breeding density and productivity*"⁷⁷. Much of the scientific literature underpinning this conclusion is presented in the Hen Harrier Conservation and the Forestry Sector in Ireland document, which was written by the Golden Eagle Trust in consultation with the Forestry Services

⁷⁵ Ruddock, M., (2012). Republic of Ireland National Hen Harrier Survey 2010. National Parks and Wildlife Service.

⁷⁶ Ruddock, M., Mee, A., Lusby, J., Nagle, A., O'Neill, S. & O'Toole, L. (2016). The 2015 National Survey of Breeding Hen Harrier in Ireland. Irish Wildlife Manuals, No. 93. National Parks and Wildlife Service.

⁷⁷ O'Donoghue, Barry, O'Donoghue, Timothy A. and King, Frank (2011) The hen harrier in Ireland: conservation issues for the 21st century. Biology and Environment: Proceedings of the Royal Irish Academy

and the National Parks and Wildlife Service⁷⁸. A habitat mapping project undertaken across the six SPAs showed that forest cover had reached 53%⁷⁹. This is roughly five times the national average¹ meaning Hen Harrier SPAs are some of the most heavily afforested areas in the country. According to research, assuming forestry at a landscape level has a well-balanced age structure then approximately one quarter of the forestry will be in the pre-thicket stage at any one time. Given the established negative relationship between Hen Harrier breeding success and second rotation pre-thicket forestry a maximum threshold of 40% total forest cover in the landscape would be needed to ensure that a Hen Harrier breeding population does not collapse⁴⁷. This is well below the current forest cover across the six SPAs⁷⁹. It was predicted in 2006 that afforestation and the maturing age structure of forestry would drive the loss of suitable open habitat beyond critical levels by 2015. Within the nine most important areas in the country for breeding Hen Harrier it was predicted that habitat loss would drive a 30% reduction in these populations⁸⁰. Sadly, the national surveys⁷³⁷⁴ which have been carried out in the meantime have proven that this prediction was an accurate one. Similar research based on population viability analysis have predicted that regional populations will go extinct within circa 30 years⁸¹. The declining conservation status of Ireland's Hen Harriers is a clear indication of the failure of the Forest Service to protect the habitats of Annex I bird species within the SPA network from the impacts of afforestation. Either the need for full appropriate assessments has been inappropriately ruled out at the screening stage or inadequate appropriate assessments have systematically come to conclusions which directly conflict with the published evidence and scientific consensus. A moratorium has been in place on further afforestation within Hen Harrier SPA since 2013. The Forest Service have been seeking an end to the moratorium ever since, despite the known consequences that further afforestation would have on Ireland's Hen Harrier population.

A detailed analysis of ongoing issues with the implementation of Article 6(3) and 6 (4) of the Habitats Directive with specific reference to the Hen Harrier has been given by An Taisce, the National Trust for Ireland⁸². This report highlights specific cases where forestry applications were given initial approval within the Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle [Site Code: 004161] for which Hen harrier is a qualifying interest. Another example given involves an approval for afforestation within Flughany Bog SAC/NHA [Site Code: 000497]. There is no evidence that appropriate assessments were carried out for any of these applications despite detailed submissions being made by prescribed bodies within the afforestation approvals systems outlining the need for full AA's.

⁷⁸ National Parks and Wildlife Service (2015) Hen Harrier Conservation and the Forestry Sector in Ireland <https://www.npws.ie/sites/default/files/publications/pdf/HHTRP%20-%20Forestry%20-%20V3.2.pdf>

⁷⁹ Moran, P. & Wilson-Parr, R. (2015) Hen Harrier Special Protection Area (SPA) Habitat Mapping Project 2014. Irish Wildlife Manuals, No. 83. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.

⁸⁰ Wilson, M., Gittings, T., O'Halloran, J., Kelly, T., & Pithon, J. (2006). The distribution of Hen Harriers in Ireland in relation to land use cover, particularly forest cover. COFORD, Dublin.

⁸¹ O'Donoghue, B.G. (2010). The Ecology and Conservation of Hen Harriers (*Circus cyaneus*) in Ireland. PhD Thesis submitted to University College Cork.

⁸² Kelly, F. (2016) An Taisce Submission Re: Public Consultation on the Draft Environmental Requirements for Afforestation 2016 http://www.antaisce.org/sites/antaisce.org/files/an_taisce_submission_on_the_consultation_for_the_environmental_requirements_for_afforestation.pdf



Figure 7. A site in Loughtown Townland, Co. Leitrim which is being prepared for afforestation. The site provided important foraging habitat for Curlew.

The BIOFOREST project⁸³ is one of the most thorough multidisciplinary studies to have been carried out on biodiversity in Irish plantation forests. Its findings support our concerns, highlighting the inadequacy of ecological assessments within the afforestation approvals process. A review of forestry Environmental Impact Statements (EIS) found that the personnel involved in biodiversity assessment for afforestation had not received adequate training or guidance to carry out ecological assessments. While the report acknowledged that the employment of an ecologist by the Forest Service was a welcome development, it added that more were needed. The review found that none of the EIS's evaluated contained adequately assessed overall biodiversity. Recurring deficiencies included insufficient scoping, non-standardised habitat/vegetation classifications, reliance on incomplete lists of species with little or no information on abundance or distribution within the site, and little or no evaluation of the conservation importance of the site. Despite these deficiencies two thirds of afforestation projects for which an EIS was submitted were approved. The report highlighted that the *“lack of adequate strategic assessment, failure of regulations to require biodiversity assessment for the vast majority of afforestation proposals, and serious deficiencies in those biodiversity assessments that are carried out mean that sites of high biodiversity importance are currently at risk of being damaged by afforestation”*⁸³.

The lack of adequate biodiversity assessment and the approval of afforestation in inappropriate locations as highlighted by this report is still an ongoing issue.

⁸³ Iremonger, S. et al. (2006) Investigation of experimental methods to enhance biodiversity in plantation forests. BIOFOREST PROJECT, 3(3), s.l.: COFORD.

Ireland has a record of failing to protect the habitats of ground nesting birds. In the case of the Commission of the European Communities v Ireland (C-117/00)⁸⁴ the European Court of Justice found against Ireland for its failure to take all the measures necessary to comply with Article 3 of the Birds Directive, the first sentence of Article 4(4) of that directive and Article 6(2) of Habitats Directive in relation to the conservation of the habitat for Red Grouse within the Owenduff-Nepin Beg Complex Special Protection Area [Site Code: 000534]. Ireland was condemned by the Court for allowing serious deterioration of wild bird habitats to occur through overstocking by sheep. The Court found that overgrazing by sheep had resulted in widespread loss of heather on which the Red Grouse is dependent. The deterioration of designated habitats^{39 40} by past and current Forestry Programmes is similarly a clear breach of Ireland's legal obligations under the Article 6 of the Habitats Directive and under Articles 3 and 4 of the Birds Directive.

The ruling of the Court of Justice of the European Union (CJEU) on the fifth complaint in Case C 418/04 Commission v Ireland 'The Birds Case,'⁸⁵ found that Ireland had failed to properly apply Article 6(2) to (4) of Habitats Directive. This court found that Ireland had systematically failed to ensure that programmes likely to have a significant effect on SPAs, either individually or in combination with other projects, are made subject to an appropriate assessment. This the Commission argued included the failure of Ireland to assess the impact of afforestation outside of Natura 2000 sites on the qualifying interests of the protected areas. The court also found that Ireland's failure to take account of the cumulative effect of projects in practice had led to a situation where all projects of a certain type may escape the obligation to carry out an assessment, whereas, taken together, they are likely to have significant effects on the environment. The findings of this case mirror the current situation where Ireland is systematically failing to ensure that forestry plans and projects are adequately assessed. This case is still open.

⁸⁴ Ruling of the Court of Justice of the European Union in Case C-117/00 Commission of the European Communities v Ireland <https://www.informea.org/en/court-decision/commission-european-communities-v-ireland>

⁸⁵ Ruling of the Court of Justice of the European Union in Case C-418/04 Commission v Ireland 'The Birds Case,' <http://curia.europa.eu/juris/showPdf.jsf?jsessionId=9ea7d0f130d5f71ac4cf6dcf4d1cb6abcb878b13a8cb.e34KaxiLc3eQc40LaxqMbN4PaN8Oe0?text=&docid=71717&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=772743>



Figure 8. A Curlew chick hiding in tall grass. A mere 130 breeding pairs of this bird remain in the Republic of Ireland meaning the species is now facing extinction⁵⁴. Afforestation is a threat to Ireland’s remaining breeding Curlew⁵³. Photograph by Anita Donaghy.

The failure to protect birds within designated sites

The failure to protect Annexed birds and habitats within Natura 2000 sites from the negative impacts of afforestation and silviculture is a breach of:

Birds Directive: Article 2, Article 4 (1), Article 4 (2), Article 5

Habitats Directive: Article 6(3) and Article 6(4) of the Habitats Directive.

These legal breaches conflict with points 13, 34, 35, 36, 40, 56 of the State Aid Decision

6.1.2 The failure to protect birds in the wider countryside

The Birds Directive also requires that member states take steps to protect wild birds outside of the SPA network. The lack of protection for birds outside of SPA’s is a threat to Annex I species which occur outside of their protected areas such as Hen Harrier, Merlin, Golden Plover, Bewicks Swan, Greenland White-fronted Goose and Dunlin⁴¹. Afforestation is also a threat to birds which have a lower level of protection than Annex I species such as Curlew, Lapwing, Red Grouse, Whinchat, Skylarks, Meadow Pipit and Ring Ouzel^{44 45 46}. Many of these species are Amber or Red-listed Birds of Conservation Concern in Ireland⁴⁴.

Article 1 and Article 2 of the Birds Directive require member states to put in place measures to protect the populations of all naturally occurring wild birds in their jurisdiction. Article 3 requires that member states “*take the requisite measures to preserve, maintain or re-establish a sufficient*

diversity and area of habitats for all ...naturally occurring wild bird species. Measures should include *“the preservation, maintenance and re-establishment of biotopes and habitats shall include”* ...not only the *“creation of protected areas”* but also the *“upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones,”* the *“re-establishment of destroyed biotopes”* and the *“creation of biotopes.”*

Outside of protected areas the second sentence of Article 4 (4) also requires that member states *“shall also strive to avoid pollution or deterioration of habitats.”* Ireland has a poor record in implementing the protection of wild bird habitats in the wider countryside. A demonstration of this is the Fourth complaint in the judgment of the Court of Justice of the European Union (CJEU) in Case C 418/04 Commission v Ireland ‘The Birds Case,’⁸⁴ in which the Court found that Ireland had failed to transpose and apply fully and correctly the second sentence of Article 4(4) of the Birds Directive.

As a sector which is a leading threat/pressure on numerous bird species and their habitats in the wider countryside the legal implications of many of the points within the ruling of ‘The Birds Case’ are directly applicable to the Forest Service. The Court found that in the measures taken by Ireland are partial, isolated measures, only some of which promote conservation of the bird populations concerned, but which do not constitute a coherent whole: *“In the Commissions view, several of the domestic measures transposing the second sentence of Article 4(4) are partial and numerous lacunae remain⁸⁴.”*

The Commission took the position that the mere fact that a number of programmes and regulatory measures may have been implemented *“which are deemed to transpose the second sentence of Article 4(4) of the Birds Directive, do not have any specifically ornithological content from that article. In the absence of any specific ornithological considerations, entities playing a role in the context of environmental measures cannot be expected to take account of ornithological interests. The shortcomings of those measures are borne out by the deterioration of habitats and, despite denials by Ireland, it cannot validly be disputed in the present case that human intervention has led to a deterioration of the habitats.”*

The Forest Service do not have adequate procedures in place to implement the legal requirements to protect bird habitats outside of the SPA network. There is no mechanism in place to identify and protect birds or their habitats. While there are limited measures in place for Hen harrier and Curlew we have concerns about their adequacy. For all other species there are no measures in place which have any specific ornithological content. The only measures in place such as the implementation of the Land Types for Afforestation guidelines only protect a limited number of Annex I habitats. While these measures may benefit some bird species by default they are not targeted enough to ensure the conservation of birds, the majority of important undesignated bird habitats or the coherence between these habitats at a landscape level. The Forest Service’s existing measures are partial and isolated and lack the specific ornithological content needed to fulfil the requirements of Article 4(4). **This lacunae in the current environmental safeguards is resulting in the deterioration of habitats due to afforestation and silviculture.**

Although the second sentence of Article 4(4) of the Birds Directive does not necessarily require that certain results be guaranteed, Member States must seriously set themselves the objective of protecting habitats outside the SPAs. The notion of striving implies that all reasonable measures must be taken to achieve the success that is sought. On this point Advocate General Kokott opinioned that *“in order for the Member States authorities at all levels to be aware of this objective*

in relation to their activities, in particular in connection with authorisation procedures, but not only in that respect, it must be set out in sufficiently clear terms in national law⁸⁶.”

This was noted by the Advocate General in point 111 of her Opinion, serious endeavours, namely the taking of all reasonable measures to achieve the success being sought, require targeted action: *“The framework for determining what is reasonable is set out in Article 2 of the Birds Directive. Under that article, Member States are to take the requisite measures to maintain the population of all European bird species which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level.”*

“Consequently, the measures taken in connection with endeavours made pursuant to the second paragraph of Article 4(4) of the Birds Directive must be arranged — on an ornithological basis — in such a way that they — in conjunction with other measures required under the directive — restore or maintain the level of the relevant species required under Article 2. When making the evaluation pursuant to Article 2, account must be taken of the extent to which and the condition in which the species rely on habitats and how the conservation thereof relates to the other requirements referred to in Article 2.”



Figure 9. Skylarks have undergone significant declines in their distribution and abundance throughout Ireland over the last two decades³⁴. They are a ground nesting bird of open habitats and are therefore negatively impacted by afforestation⁴⁵. Photograph by Thomas McDonnell.

⁸⁶ Opinion of Advocate General Kokott (2006) to CJEU on Case C-418/04: <http://bit.ly/2kscfJA>

The failure of the Forest Service to implement procedures and guidelines to protect vulnerable birds and their habitats in the broader countryside is a failure to achieve the duty of diligence or best endeavours which is required by the second sentence of Article 4(4) of the Birds Directive. The Forest Service must implement specific actions which lay down protections which are specifically ornithological and which in conjunction with other measures required under the Birds Directive restore or maintain the level of the relevant species required under Article 2 of the Directive.

While the Environmental Requirements for Afforestation¹¹ encourage the protection of Annex I habitats outside of the Natura 2000 network afforestation can still be approved based on the subjective opinion of an inspector on the long-term prospects of the habitat. The foresters and forest inspectors often lack the necessary ecological expertise to identify Annexed and priority habitats (as previously highlighted)⁸³. As the Forest Service only employs one full time ecologist it is not currently possible for all sites which may host designated habitats or species to be assessed. There is no supporting national legislation which would afford this necessary protection to wild birds and biodiversity. Within the Wildlife Act 1976 (as amended) it is not an offence to unintentionally injure or kill a protected wild bird, or to remove or destroy the eggs or nest of a protected wild bird in the ordinary course of forestry. This practice in itself may be in conflict with Article 4(4) of the Birds Directive.

While Ireland's national network of Natural Heritage Areas (NHAs) supplements the Natura 2000 network it does not offer protection to all the habitats necessary for the conservation of wild bird populations. The sites are not subjected to a protection regime equivalent to that afforded to Natura 2000 sites under Article 6 (3) and 6 (4) of the Habitats Directive. Many NHAs lack adequate site synopsis, conservation objectives or sufficient monitoring to support a determination on the value of the habitats they contain for birds. The Forest Service can afforest these sites even if they contain important peatland and grassland habitats. One such application was given initial approval for afforestation in the Slieve Rushen Bog NHA [Site code: 00009]⁸². An Taisce, the National Trust for Ireland, who are a statutory consultee in the forestry consent system under Environmental Impact Assessment (Amendment) Regulations 2001 (S.I. No 538 of 2001), appealed this approval on the basis that the site is of national importance for Hen Harriers and other upland habitats and species. A subsequent field inspection which was carried out as the result of the appeal found that the site contained the Annex I habitat [4010] Northern Atlantic wet heaths with *Erica tetralix*⁸². The approval was subsequently overturned based on the numerous ecological impacts that afforestation would have on the site. The current procedures which are in place failed to identify the ecological significance of the site and were it not for the fortuitous intervention of a third party the site would have been afforested just as so many others have and continue to be.

The protection of birds in the wider countryside

The failure to protect birds and their habitats within the wider countryside from the negative impacts of afforestation and silviculture is a breach of:

Birds Directive: Article 1, Article 2, Article 3, Article 4(4),

Habitats Directive: Article 3(3) and Article 10

These legal breaches conflict with points 13, 34, 36, 40, 56 of the State Aid Decision

6.2 The Failure to Protect Aquatic Biodiversity

There are a number of laws and regulations which require Ireland to protect and enhance the ecological and water quality status of its surface water bodies. The environmental objectives of the Water Framework Directive, in Article 4 require member states to prevent the deterioration of the status of all surface water bodies and to protect, enhance and restore surface water bodies by 2015. The ruling made by the European Court of Justice on the Weser dredging case (C-461/13)⁸⁷ provides some clarity on the definition of deterioration under the Water Framework Directive. According to the ruling Article 4(1) (a)(i) to (iii) of the WFD must be interpreted as meaning that in the absence of a derogation Member States must refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status. Ireland has failed to achieve these obligations by the 2015 deadline and is unlikely to achieve compliance by 2021.

The Habitats Directive has close links to the WFD through the Register of Protected Areas, which includes Special Areas of Conservation (SAC) designated under the Habitats Directive, and Special Protection Areas (SPAs) designated under the Birds Directive. Ireland has identified 430 candidate Special Areas of Conservation (SACs), of which, 358 (83%) contain either water-dependent habitats and/or water-dependent protected species. According to the NPWS there are 44 different designated water-dependent habitats and 22 water-dependent species protected in Ireland³⁹. Even if a derogation was given under the WFD the requirements of Article 6 of the Habitats Directive still apply to forestry plans or projects which could impact on Natura 2000 site.

⁸⁷ The Weser Case: Case C-461/13 Bund V Germany <http://curia.europa.eu/juris/liste.jsf?num=C-461/13>



Figure 10. Forestry in Arduns, Gweedore, Co. Donegal which is managed Coillte negatively impacting on water quality. Photograph by Fintan Kelly

As the greatest pressure on river and lake water bodies that are at risk of not meeting their high ecological status objective⁶² the expansion of forest cover under the Forestry Programme should be treated as a serious compliance issues for Ireland under both the WFD and the Habitats and Birds Directives. According to the EPA, high status sites are extremely fragile and even small increases in the amount of Phosphorus and Nitrogen can damage the sensitive ecology associated with these sites⁸⁸. The threat posed by new afforestation and existing forestry within sensitivity catchments means further losses of high status will occur unless precautionary measures are but in place. The ongoing loss of high ecological status sites⁷⁰ and the negative impacts of forestry on designated aquatic and wetland habitats means that forestry is a major factor in the 'bad' conservation status of

⁸⁸ Ní Chatháin, B., Moorkens, E. & Irvine, K. (2012). Management Strategies for the Protection of High Status Water Bodies, Wexford: Department of Environment, Community and Local Government

the Annex II Freshwater Pearl Mussel species and the unfavourable/inadequate status of Atlantic Salmon³⁹.

According to the SEA⁴ of the current Forestry Programme high status waterbodies and areas with other water related priorities (such as Freshwater Pearl Mussel catchments) must not be compromised by forestry activities. The recommendations within the SEA state that in addition to adhering to the Forest Service's Forestry and Water Guidelines²⁵ the recommendations of the UCD HYDROFOR project⁸⁹ regarding measures to mitigate impacts of forestry operations on water quality and quantity should be incorporated. The HYDROFOR study assessed the Impacts of forestry operations on aquatic ecology in Ireland. The report recommended that in many areas negative impacts could be reduced by carefully designed water protection measures. However, in catchments with peat soils such as the negative impact of nutrient and sediment loss on the hydrochemistry and ecology of waterbodies that a cessation of conifer afforestation on peat soils in acid-sensitive (< 15 mg CaCO₃/L) headwater catchments was recommended. While the forestry service has taken many steps to reduce impacts on the ecological status of waterbodies these are insufficient to protect high status waterbodies from deterioration. It has also been claimed by An Taisce that the existing guidelines are not being stringently implemented. This statutory consultee within the forestry consent system claims that approvals do not stipulate the site-specific detail which would be necessary to properly implement the guidelines and avoid water quality impacts⁹⁰.

The Failure to Protect Aquatic Biodiversity

The failure to protect the water quality and ecological status of water bodies from the negative impacts of afforestation and silviculture is a breach of:

Article 4 of the Water Framework Directive
Article 6(3) and Article 6 (4) of the Habitats Directive.

These legal breaches conflict with points 13 34, 35, 40, 56 of the State Aid Decision.

6.3 The Failure to Protect High Nature Value Farmland

Within the EU it is recognised that the loss of semi-natural habitats associated with agricultural is a major driver of biodiversity loss. Over 50% of Europe's most highly valued biotopes occur on low-intensity farmland⁹¹. Of Europe's most threatened habitats and species, 57 types of habitat and 257 species depend on or are associated with farming. Worryingly over 75% of these habitats and at least 70% of the species are in unfavourable conservation status⁹². In Ireland Red Listed birds which are heavily dependent on farming include Barn Owl (*Tyto alba*), Corncrake (*Crex crex*), Curlew (*Numenius arquata*), Grey Partridge (*Perdix perdix*), Lapwing (*Vanellus vanellus*), Meadow Pipit (*Anthus pratensis*), Redshank (*Tringa tetanus*), and Yellowhammer (*Emberiza citrinella*) to name a few⁴⁴. Annex I habitats under the Habitats Directive which are reliant on farming practices include Calaminarian grassland, Molinia meadows, Hydrophilous tall herb, Lowland hay meadows and the priority habitats Orchid-rich calcareous grassland and Species-rich nardus upland grassland³⁹. Marsh Fritillary (*Euphydryas aurinia*) is the only Irish insect listed on Annex II of the Habitats Directive. It is a

⁸⁹ Kelly-Quinn, M. et al. (2016). Research 169: HYDROFOR: Assessment of the Impacts of Forest Operations on the Ecological Quality of Water, Wexford: Environmental Protection Agency.

⁹⁰ Kelly, F. (2017) An Taisce Submission on the public consultation of the Mid Term Review of the Forestry programme for 2014 – 2020 http://www.antaisce.org/sites/antaisce.org/files/20170502001_an_taisce_submission_mid_term_review_-_forestry_programme_for_2014_-_2020.pdf

⁹¹ Bignal, E M and McCracken, D I (2016) Low-intensity farming systems in the conservation of the countryside. Journal of Applied Ecology: 413-424.

⁹² Keenleyside, C, et al. High Nature Value farming throughout EU-27 and its financial support under the CAP. London: DG Environment, Contract No ENV B.1/ETU/2012/0035, Institute for European Environmental Policy, 2014.

colonial butterfly which is dependent on the food plant Devil's bit scabious (*Scabiosa succisa*)⁹³. The need to protect farming systems in Europe of greatest biodiversity value is recognised as being necessary if the EU is going to halt biodiversity loss under the 2020 biodiversity agreement⁹⁴. These farming systems have been defined by DG Agri as High Nature Value (HNV) - *“High Nature Value farmland comprises those areas in Europe where agriculture is a major (usually the dominant) land use and where that agriculture supports or is associated with either a high species and habitat diversity, or the presence of species of European, and/or national, and/or regional conservation concern, or both.”* Indeed *“the highest grade of HNV farmland is that which supports the presence of species of European conservation concern”*⁹⁴.

Article 6 of the supplementing regulations of the Rural Development Regulations (No. 1305/2013) provides protection for HNV farmland from afforestation⁹⁵ (emphasis added):

*“Minimum environmental requirements with which the afforestation of agricultural land must comply should be laid down ensuring that **no inappropriate afforestation of sensitive habitats including areas under high natural value farming takes place** and that the need for resilience to climate change is taken into account. On sites designated as Natura 2000, afforestation should be consistent with the management objectives of the sites concerned. Special attention should be paid to specific environmental needs for particular sites such as the prevention of soil erosion. More stringent rules should be provided for afforestation operations leading to the creation of larger forests in order to take into account the impact of scale of those operations on the ecosystems and to ensure that they comply with the objectives of the Green Infrastructure Strategy (1) and new EU Forest Strategy (2).”*

These obligations have been reflected within the Forestry Programme 2014-2020 to some extent¹. The need to protect HNV farming is mentioned in Priority 4 (a) of the programme: in order to preserve restore and enhance *“biodiversity, including in Natura 2000 areas and high nature value farming, and the state of European landscapes.”* Unfortunately, there are no corresponding objectives or actions under priority 4 which even mention HNV farmland. The obligation to protect HNV farmland is referenced later in the Forestry Programme where it states, *“the inappropriate afforestation of sensitive habitats such as peatlands and wetlands will be avoided, as well as the negative effects on areas of high ecological value including areas under high natural value farming.”* This statement obliges the Forest Service to ensure that safeguards are put in place to protect HNV farmland. Despite the Forest Service’s acceptance that HNV farmland should be protected there are currently no guidelines or recommendations within the afforestation approvals process to implement these obligations.

As way of an excuse for the current failure to protect HNV farmland the Forestry Programme states that *“the concept of High Nature Value land is not yet fully established in Ireland and HNV land has not been specifically designated or mapped.”* We do not agree with this statement given that Ireland is at the forefront when it comes to identifying HNV farming systems and protecting them through the implementation of results based agri-environmental schemes⁹⁶. Significant progress has been

⁹³ Lavery, T. A. (1993). A review of the distribution, ecology and status of the marsh fritillary *Euphydryas aurinia* Rottemburg, 1775 (Lepidoptera: Nymphalidae) in Ireland. *The Irish Naturalists' Journal*, 192-199.

⁹⁴ Cooper, T, et al. 2007 HNV Indicators for Evaluation, Final report for DG Agriculture. Brussels: European Commission, Institute for European, Environmental Policy

⁹⁵ European Commission delegated regulation No 807/2014 supplementing regulation (EU) No 1305/2013 <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0807&from=en>

⁹⁶ Ó hUallacháin, D and J A Finn (2015) *Farmland Conservation with 2020 Vision*. xx-xx. ISBN 978-1-84170-620-7. Wexford: Teagasc.

made in mapping the predicted distribution nationally of HNV farmland⁹⁷ and there is existing data on the distribution of many semi-natural habitats¹⁷ and species of European conservation concern⁹⁸. However, the predicted distribution maps produced are not of high enough resolution and they have not been ground-truthed. In the absence of a map of HNV distribution at high resolution it is the responsibility of the Forest Service to ensure that ecological assessments are carried out which identify habitats and species which denote the presence of HNV farmland. The Forest Service may argue that the measures they have in place to identify Annex I habitats within and outside of Natura 2000 sites fulfils their obligations towards HNV farmland. This is not in our opinion the case given that farmland can be considered HNV due to the “*the presence of species of European, and/or national, and/or regional conservation concern, or both.*” This would mean that the foraging and breeding habitat of Annex I bird species and Birds of Conservation Concern in Ireland should be considered HNV if the population it supports are important for the regional or national conservation of the species. Using European designations as the sole qualification for whether a habitat or a species is of conservation concern will fail to protect biodiversity of national and/or regional conservation concern.



Figure 11. A Marsh Fritillary (*Euphydryas aurinia*) photographed in Tullinarory Townland, Co. Cavan on a site which supported a mosaic of species rich grassland, blanket bog and heath. The site was afforested. Marsh Fritillary are an Annex II species under the Habitats Directive³⁹.

According to the SEA⁴ of the Forestry Programme 2014-2021 the afforestation of areas of high ecological value including areas under HNV farming sites will be avoided. Going further the SEA also states that in the context of ensuring protection of biodiversity in the wider countryside and to ensure connectivity of Ireland’s designated sites, protection should be afforded to habitats adjoining

⁹⁷ Matin, S., Sullivan, C.A., Ó hÚallacháin, D., Meredith, D., Moran, J., Finn, J.A. and Green, S., 2016. Map of High Nature Value farmland in the Republic of Ireland. *Journal of Maps* 12: 373–376.

⁹⁸ Balmer, D.E., Gillings, S., Caffrey, B., Swann, R.L., Downie, I.S. and Fuller, R.J., 2013. *Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland*. Thetford: BTO.

HNV farmland. This, it was proposed would be achieved using the IFS mapping system to screen for negative impacts. The extent of buffer areas the SEA proposed would be discussed with NPWS (or DOENI if site is in NI) and other stakeholders as appropriate. Despite these commitments the Forest Service:

- 1) Do not have a working definition of what HNV farmland is.
- 2) Do not have a mapping system / landscape level approach to identify HNV farmland.
- 3) Do not have protocols or guidelines in place to identify or protect undesignated HNV farmland.

The failure to safeguard HNV farmland is not in line with the Rural Development Regulations⁶, their supporting delegated regulations⁹⁵ or the commitments made in the Forestry Programme 2014-2021¹. **Until a system is put in place to protect HNV farmland the Forest Service are not operating in line with EU law and therefore in conflict with the State Aid decision.**

According to the Forest Service's Land Types for Afforestation Document¹², the SEA⁴ of the current Forestry Programme and Council for Forest Research and Development (COFORD)⁹⁹ afforestation in Ireland will be strategically targeted on marginal agricultural land with wet mineral soils supporting semi-natural grasslands and rushy fields. This marginal farmland, is known to be associated with the occurrence of High Nature Value (HNV) farmland⁹⁷. Because of this relationship there is a direct overlap between land which is being earmarked for afforestation¹⁰⁰ and HNV farmland⁹⁷. Figure 12 demonstrates the overlap between marginal agricultural land which is targeted for afforestation¹⁰⁰ (left) and HNV farmland⁹⁷ (right). The map on the left highlights in orange the areas which are affected by National and EU environmental designations and in light green land which is classified as marginal agricultural land. Both areas overlap with the predicted distribution of HNV farmland on the right. Based on the reality that forestry expansion is targeted at areas of HNV farmland, the Forestry Programme is and will continue to be a driver of the loss and degradation of these areas of importance for biodiversity.

The Failure to Protect High Nature Value Farmland

The failure to protect High Nature Value farmland from the negative impacts of afforestation and silviculture is a breach of:

Article 6 of the supplementing regulations of the Rural Development Regulations (No. 1305/2013)

These legal breaches conflict with points 13, 36, 40, 56 of the State Aid Decision.

⁹⁹ COFORD (2016) Land Availability Working Group. Land Availability for Afforestation - Exploring opportunities for expanding Ireland's forest resource. COFORD, Dublin: <http://bit.ly/2AAGcx1>

¹⁰⁰ Farrelly & Gallagher (2016) Potential availability of land for forestry, TRResearch Volume 11: Number 1. Spring 2016, ISSN 1649-8917 <http://bit.ly/2ABMsVA>

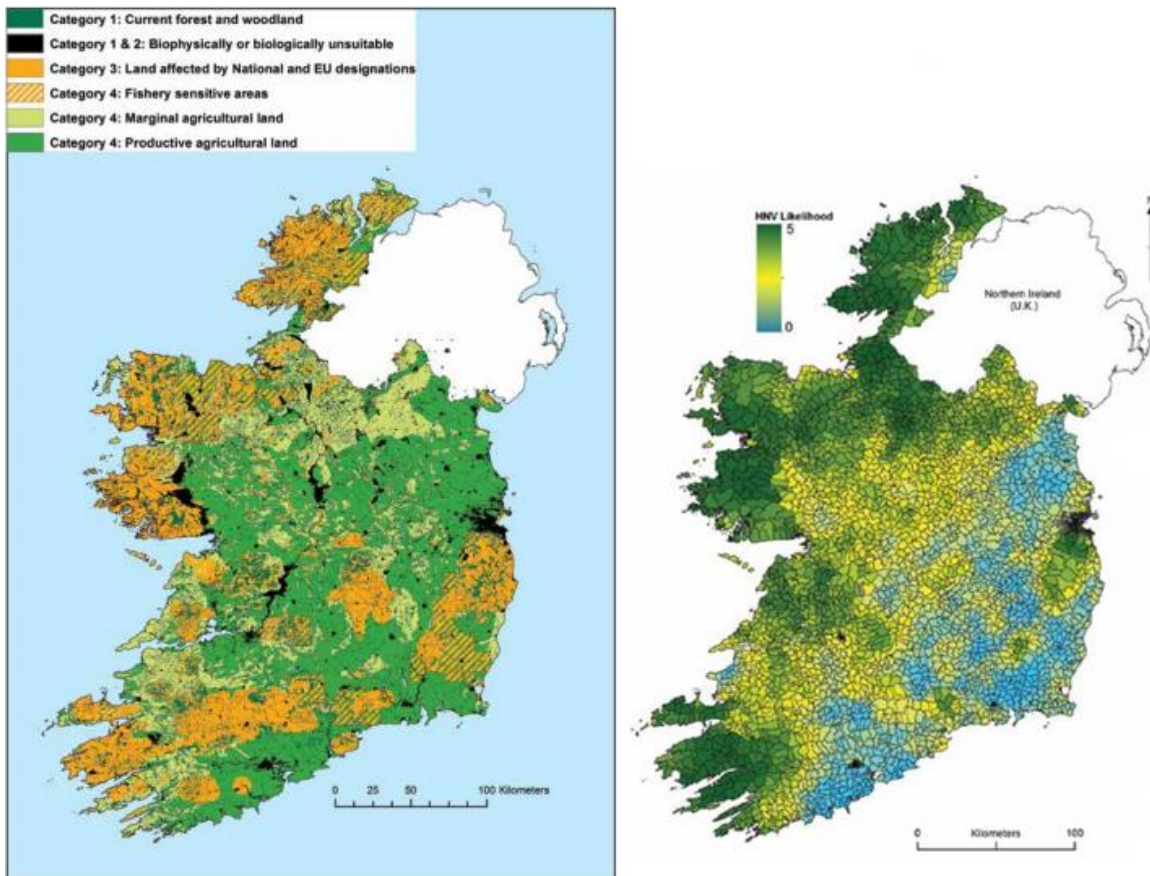


Figure 12 Left¹⁰⁰: Classification of Ireland's land area in relation to the availability of land for afforestation and the area of productive and marginal agricultural land with most potential for forestry expansion. Areas with solid orange colouring denote land with National and EU designation. Hatched orange areas denote land which are fisheries sensitive. Light green areas denote marginal agricultural land with no designation. Right⁹⁷: Predicted distribution of HNV farmland in the Republic of Ireland. The overlap between HNV farmland and areas deemed suitable for afforestation by Teagasc highlights the threat posed by the forestry programme and the lack of consideration given to biodiversity conservation within Ireland's forestry strategy.



Figure 13. A site in Co. Leitrim which supports the protected Marsh Fritillary and HNV farmland with species rich grassland and elements of heath habitat which has been planted with birch and Sitka spruce.

7. Discussion

The Failure to Implement the Recommendations of SEA and NIS of the Forestry Programme

The conclusion of the SEA of the Forestry Programme 2014-2020 that there would be no significant adverse or residual impacts on the environment post mitigation has no justification. Likewise, the conclusion of the Forestry Programmes Natura Impact Statement that there will be no significant adverse effects upon the integrity of any Natura 2000 sites cannot be justified. These conclusions were based on inaccurate assumptions. One of these assumptions was that all the existing environmental guidelines and legal protections would be properly implemented. This includes the need for adequate Appropriate Assessments to be carried out for individual applications. We have identified a whole range of the legal requirements of the Habitats Directive, Birds Directive and the Water Framework Directive which are not being implemented correctly.

An example of an inaccurate assumption within the Forestry Programme is the statement within the NIS that “*afforestation will mainly occur on improved agricultural land, with mineral soils*”⁵. This is not in line with the research carried out by Teagasc which underpins the Forestry Programme. According to Teagasc productive agricultural land will continue to be the focus of food production and therefore opportunities for afforestation will be focused on the 1.3 M ha of marginal agricultural¹⁰¹.

¹⁰¹ Farrelly, N., & Gallagher, G. (2015). The potential availability of land for afforestation in the Republic of Ireland. Irish Forestry.

The establishment of Native Woodlands and an increase in broadleaf cover was proposed as one of the core mitigating measures for biodiversity within the forestry programme¹. These aspirational targets have not been met with the Forest Service themselves conceding that “*annual broadleaf planting target has fallen considerably short of the 30% target included in the EU Commission’s State aid approval for the forestry programme*¹⁰².” This undermines the environmental credentials of the forestry programme.

Specific commitments which were outlined in the SEA and NIS of the Forestry Programme have never been implemented such as:

- The Forest Service have no monitoring in place to ensure that the Forestry Programme is not negatively impacting on biodiversity. No system of monitoring for upland birds or breeding waders has been implemented as recommended within the SEA.
- The SEA recommended that ecological assessments may be needed on a site-by-site basis and that appropriate ecological assessment to be carried out in sites where Annex I habitats or the habitat of Annex I birds or Annex II species occur or are likely to occur. These ecological assessments are not being carried out.
- According to the NIS sites with breeding Annex I bird species within Natura sites should be avoided. The Forest Service have no procedures in place to implement this recommendation.
- The NIS recommended that a review should be carried out of the impact of forestry on all qualifying interests of all Natura 2000 sites. No such assessment has never been carried out to date.

The implementation of the recommendations of the SEA⁴ and NIS⁵ was deemed necessary to mitigate the negative impacts of the Forestry Programme on biodiversity. It therefore must be concluded that the failure to carry out the recommended actions critically undermines the conclusions of the SEA and NIS. In other words, the Forestry Programme is resulting in significant adverse and residual impacts on the environment.

The Failure to Implement the requirements of the Rural Development Regulations and the State Aid Decision

The failings within the Forestry Programme conflict with many requirements within the Rural Development Regulations⁶ and the State Aid Decision³. For the reasons outlined within this report the Forestry Programme is not in line with the fourth priority of the Rural Development Regulation which is ‘*Restoring, preserving and enhancing ecosystems related to agriculture and forestry*’ or Article 5 of the Rural Development Regulations which among other things requires the protection of biodiversity, including within Natura 2000 areas, and areas under high nature value farming.

We have identified twelve points within the State Aid decision of the Afforestation and Creation of Woodlands Scheme which outline specific environmental conditions which must be implemented for state aided forestry to be compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union (Table 7). We believe that there are serious compliance issues with at least eight of these conditions which are resulting in significant negative impacts on Irish biodiversity. We have summarised the key pieces of EU environmental legislation which we believe are being breached by state-aided forestry in table 9 in the annex. These issues require detailed examination by the European Commission. Urgent steps need to be taken to ensure

¹⁰² Forest Service (2017) Forestry Programme 2014 – 2020 Mid Term Review. Forest Service Department of Agriculture Food and the Marine Johnstown Castle Estate Co. Wexford

that the Irish forestry sector is compliant with environmental legislation and regulations to ensure that the sector is eligible for grant aid moving forward.

Table 7: Failure to comply with the environmental safeguards within the State Aid Scheme for the Afforestation and Creation of Woodlands Scheme

Afforestation Scheme	
13	Point 13 requires that “ <i>projects must be undertaken in compliance with national and EU legislation.</i> ” We have identified numerous issues of non-compliance with EU environmental legislation (Section 7).
Native Woodland Establishment Scheme	
22	Point 22 emphasises the value of native woodlands within the programme and the role that the forestry programme will play in addressing habitat fragmentation and protecting water quality. We believe that the afforestation scheme is driving habitat fragmentation and negatively impacting on water quality (Section 6).
Common features to all schemes	
34	Point 34 states that “ <i>afforestation will be avoided on environmentally unsuitable sites</i> ” and that “ <i>Afforestation will be adapted to environmental sensitivities, such as habitats and species (including NATURA sites, Freshwater Pearl Mussel and Hen Harrier), water quality (including fisheries sensitive areas, waterbody status, acid sensitive areas).</i> ” We contest that afforestation is being carried out in environmentally unsuitable sites such as HNV farmland and Natura 2000 sites and NHA’s which are designated for open habitat specialist. Afforestation is having a negative impact on water quality in high status waterbodies, designated waterbodies, fisheries sensitive sites and acid sensitive catchments.
35	According to point 35 afforestation will “ <i>comply with Natura 2000 management plans or, in the absence thereof, with the general conservation objectives of the sites (non-deterioration of the sites as a minimum requirement).</i> ” As highlighted by the most recent NPWS Article 17 report forestry is one of the leading pressures/threats on designated habitats and Annexed species in Ireland (Section 6). Afforestation and silviculture conflicts with the management plans and conservation objectives of many Natura 2000 sites (Section 7).
36	Point 36 states that “ <i>the inappropriate afforestation of sensitive habitats such as peat lands and wetlands will be avoided, as well as the negative effects on areas of high ecological value including areas under high natural value farming.</i> ” The afforestation of sensitive habitats is an ongoing issue. The afforestation of HNV farmland is actively encourage under the current afforestation policy. The forest service has no procedures in place to identify or protect HNV farmland.
38	Point 38 states that “ <i>at national level, Ireland aims to achieve a target of 30% broadleaves.</i> ” Ireland has failed to achieve any of its targets for Native Woodland or broadleaf establishment.
40	Point 40 states that “ <i>the environmental requirements and the ecological infrastructure will be considered in a coherent and integrated manner, in order to achieve the indicated environmental aims in relation to soil and water quality, biodiversity and ecosystems protection.</i> ” The current environmental requirements and their implementation are failing to protect soil, water quality , biodiversity and ecosystems. The current approvals system is not transparent enough to allow adequate public participation and is not integrated with Ireland’s environmental obligations.
Objective of common interest	

56	Point 56 of the State Aid decision states that <i>“the Irish Authorities have assessed the environmental impact of the schemes, demonstrating that the aid measure does not result in an infringement of applicable Union environmental protection legislation.”</i> As we have argued the Irish Authorities assessment was deeply flawed and the forestry programme is infringing on Union environmental protection legislation. An array of recommendations within the SEA and NIS of the forestry programme have never been implemented.
68/73	Points 68 and 73 refer to the minimum environmental requirements for forestry which as we pointed out under points 34 and 40 are not being met in relation to the protection of sensitive habitats, areas of high ecological value, areas of high natural value farming or Natura 2000 sites .

8. Conclusion

The evidence presented in this report has established that afforestation and silviculture as funded under past and current forestry programmes is having a significant adverse impact on biodiversity both inside and outside of protected areas and across both terrestrial and freshwater habitats.

These negative impacts conflict with the EU’s Biodiversity Strategy which aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020¹⁰³. In particular. We have identified issues of non-compliance or poor implementation of key pieces of EU environmental legislation and regulations and we have supported these claims with specific cases such as the declining trends in Ireland’s population of Hen Harriers and high-status rivers.

These conflicts and lack of compliance include:

- The failure of the Forestry Programme to implement the recommendations of its own SEA and NIS must be interpreted as indicating that state-aided forestry is resulting in significant adverse and residual impacts on the environment.
- The Forestry Programme is non-compliant with elements of the Habitats and Birds Directives, the Water Framework Directive and the Rural Development Regulations.
- The failure of the Forestry Programme to protect Annexed species within the Natura 2000 network is in breach of Articles 3 and 4 of the Birds Directive and Article 6 of the Habitats Directive.
- The failure of the Forestry Programme to protect biodiversity outside of the Natura 2000 network is in breach of Article 3 and 10 of the Habitats Directive and Article 3 of the Birds Directive.
- The failure of the Forestry Programme to protect the water quality and ecological status of waterbodies is in breach of Article 4 of the Water Framework Directive.
- The failure to protect High Nature Value farmland is in breach of Article 6 of the Rural Development Regulations (No. 1305/2013).

Because of these issues we believe that the Forestry Programme 2014-2020 has serious non-compliance problems with at least eight of the environmental conditions within the State Aid

¹⁰³ European Union (2011) The EU Biodiversity Strategy to 2020, European Commission, Brussels, Belgium <http://bit.ly/1ExEO89>

Decision for Ireland’s Afforestation and Creation of Woodlands Scheme³ and is partially / uncertain for non-compliance with at least four other conditions.

In conclusion BWI calls on the European Commission to investigate how and if state-aid funding for the current Forestry Programme is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union. This should be treated as a matter of urgency given the standing of afforestation as a significant pressure on biodiversity and water quality nationally and the looming deadlines for Ireland to implement the EU Biodiversity Strategy (2020) and the Water Framework Directive (2021).

Annex

Table 4: Key biodiversity safeguards within the FSM
Personnel
Registered Foresters and Forestry Inspectors
Forestry Inspectors and foresters must be trained in the implementation of environmental safeguards to become registered. They must agree to comply with the forestry services standards including environmental requirements. Failure to comply may result in the loss of registered status.
Forest Service Ecologist
The Forest Service employ one ecologist who is available to carry out ecological assessments and biodiversity/environmental assessments.
Identification of Environmental Impacts
GIS Systems
The GIS mapping systems used by foresters (INET) and Forestry Inspector (IFORIS) include designated sites and areas with other environmental constraints. Foresters are required within the F1 form to identify if a site is acid sensitive, fisheries sensitive, near a designated site, within a designated site, Hen Harrier or Freshwater pearl mussel sensitive.
Biodiversity Map
The biodiversity map also requires that designated sites Natural Heritage Areas (NHA), proposed Natural Heritage Areas (pNHA), Special Areas of Conservation (SAC), Special Protection Areas (SPA) are identified within the application.
Calcium carbonate test
Calcium carbonate testing facilitates the identification of acid sensitivity which is positive from both a Water Framework Directive, Habitats Directive, Birds Directive and Wildlife Acts perspective.
Soil analysis report
Can facilitate the implementation of measures designed to implement the WFD.
Referrals Process
Further Information/NIS
The District Inspector may as part of the ‘Further Information Required’ request revised maps or the submission of a NATURA Impact Statement – Habitats Directive/Birds Directive: National Parks and Wildlife Service – Habitats and Birds Directives, Wildlife Act Inland Fisheries Ireland – Water Framework Directive, Habitats Directive Local Authority - Water Framework Directive, Habitats Directive, Wildlife Act An Taisce - Water Framework Directive, Habitats Directive, Wildlife Act
Open Consultation

The fact that applications are in the public domain and environmental non-governmental organisation are allowed to comment on applications increases the likelihood that potential environmental conflicts will be flagged during the approvals process*. *There are issues with the quality of the information available to the public and an ongoing failure of the Forest Service to heed eNGO input.

Appeals procedure

An appeals procedure exists for the public, environmental non-governmental organisation and prescribed bodies can refer approvals they do not agree with for review.

Implementation of Environmental Legislation

EIA Directive

Thresholds exist for EIA's within the afforestation approvals process The District Inspectors are trained in identifying if an EIA is mandatory and are also capable of carrying out sub-threshold EIA screenings. The Forest Service have a sub-threshold EIA process to guide forestry inspectors.

Appropriate Assessment Procedure

The Appropriate Assessment Procedure are the guidelines designed by the Forest Service to implement the legal requirements of Article 6(3) and 6(4) of the Habitats Directive, namely to consider any possible impact on the conservation objectives of a Natura site that might arise from a plan or project, before a decision is taken whether or not to allow that plan or project to proceed – Habitats and Birds Directives.

In summary:

- the Forest Service undertakes the Screening for Appropriate Assessment
- the applicant provides the NATURA Impact Statement (NIS) (if required)
- the Forest Service undertakes the Appropriate Assessment (if required).

Guidance exists for the implementation of the AAP in relation to Hen Harrier and Freshwater Pearl Mussel.

Freshwater Pearl Mussel Requirements

Forms A and B of the Forestry & Freshwater Pearl Mussel Requirements facilitate the protection of Freshwater Pearl Mussel – Habitats Directive compliance.

Plantation rules

There are many measures within the plantation rules which ensure the delivery of biodiversity measures within the forestry programme. These include the use of Areas for Biodiversity Enhancement (ABEs), a 10% broadleaf requirement and guidance on the use of broadleaves and native woodland to protect water quality – These measures may be beneficial for the protection and enhancement of biodiversity and are in line with broader countryside measures within the Art. 10 of the Habitats and Art. 3 and 4 of the Birds Directive, the Water Framework Directive and the Rural Development Regulation 807/2014.

Land eligibility

The implementation of land eligibility should indirectly result in the protection of Annex I peatlands such as raised and blanket bogs as well as cutaway bogs – Habitats & Birds Directives.

Buffer zones and exclusion zones

The use of buffer zones along watercourses should increase the likelihood that negative impacts on water quality and aquatic ecology will occur – Water Framework Directive, Habitats and Bird Directives.

Burning and clearing vegetation

Requirements relating to the control of vegetation help to implement Section 40 of the Wildlife Act which protects vegetation on uncultivated land from cutting, grubbing burning or destruction during the bird nesting season (May 1st – Aug 31st) – Wildlife Acts, Habitats and Birds Directives*

*This is contradicted however by Sections of the Wildlife Act 1976:

22(5)(b)-(c) which provide exemptions for unintentional injuring or killing of birds and the destroying of the eggs or nest of a protected wild bird.

23(7)(a)-(b) which provide exemptions for the unintentional injuring or killing of wild animals and their breeding places.

Fertilisation Requirements

Requirements relating to the use and application of fertiliser and Aerial Fertilisation Requirements help prevent Eutrophication – Water Framework Directive, Habitats Directive.

Table 8 and table 9 below use the following key:

Key of compliance with environmental legislation and the state aid decision.	
Non-compliance with serious environmental ramifications	
Improved compliance necessary	
Total compliance being achieved	
Compliance uncertain	

Table 8: Environmental Safeguards within the State Aid Scheme for the Afforestation and Creation of Woodlands Scheme

Afforestation Scheme		
13	Projects must be undertaken in compliance with national and EU legislation. Only projects which receive prior written approval from the Department of Agriculture, Food and the Marine, and are undertaken in compliance with sustainable forest management and any specific conditions of approval, will be eligible for support.	
Native Woodland Establishment Scheme		
22	The scheme is a key biodiversity measure within Ireland's national forest policy, by supporting a wide range of other benefits and functions arising from native woodlands, relating to reversing wider habitat fragmentation, the protection and enhancement of water quality, landscape, cultural heritage, wood and non-wood products and services, the practice of traditional woodland management techniques, environmental education, and carbon sequestration.	
23	The scheme will increase the area of native woodland within Ireland and will introduce a forestry land use option for farmers in environmentally sensitive areas, promoting the use of native woodland creation to deliver wider ecosystem services such as water quality, soil stabilisation and habitat connectivity.	
24	For environmental purposes, strict adherence to the Native Woodland Establishment Site Appraisal Framework will apply for this scheme.	
Common features to all schemes		
34	All afforestation under the four sub-schemes will require consent from the Forest Service in order to ensure that the site is suitable. Afforestation will be avoided on environmentally unsuitable sites. Afforestation will be adapted to environmental sensitivities, such as habitats and species (including NATURA sites, Freshwater Pearl Mussel and Hen Harrier), water quality (including fisheries sensitive areas, waterbody status, acid sensitive areas), archaeology, landscape, and local sensitivities.	
35	The measure will comply with Natura 2000 management plans or, in the absence thereof, with the general conservation objectives of the sites (non-deterioration of the sites as a minimum requirement).	
36	The inappropriate afforestation of sensitive habitats such as peat lands and wetlands will be avoided, as well as the negative effects on areas of high ecological value including areas under high natural value farming.	
38	It will be a requirement of all applications submitted for approval to contain at least 10% of the area with broadleaved and native species which may be planted in areas adjacent to watercourses or in areas to maximise landscape impacts. At national level, Ireland aims to achieve a target of 30% broadleaves.	
40	The environmental requirements and the ecological infrastructure will be considered in a coherent and integrated manner, in order to achieve the indicated environmental aims in relation to soil and water quality, biodiversity and ecosystems protection.	
Objective of common interest		
56	In line with point 52 of the Guidelines, the Irish Authorities have assessed the environmental impact of the schemes, demonstrating that the aid measure does not result in an infringement of applicable	

	Union environmental protection legislation. The Irish Authorities foresee protection measures to respect environmental sensitivities, including the protection of habitats and species (including NATURA sites, Freshwater Pearl Mussel and Hen Harrier), water quality (including fisheries sensitive areas, water body status, acid sensitive areas), archaeology, landscape, and local sensitivities. The capacity of the site to support a forest is also taken into consideration, via factors such as site fertility, elevation and exposure, and access.	
Specific assessment according to the category of aid		
Sub-scheme 1: Afforestation Scheme		
68	The conditions of point 509 of the Guidelines concerning minimum environmental requirements are met, as set out in points 34 to 40 of the description above. Species planted will be adapted to the environmental and climatic conditions of the area and comply with minimum environmental requirements.	
Sub-scheme 2: Native Woodland Establishment Scheme		
73	The conditions of point 509 of the Guidelines concerning minimum environmental requirements are met, as set out in points 34 to 40 of the description above. Species planted will be adapted to the environmental and climatic conditions of the area and comply with minimum environmental requirements.	

Table 9: The compliance of the Forestry Programme 2014-2020 with key Environmental legislation

Failure to protect Annexed species within the Natura 2000 network		
Birds Directive (Directive 2009/147/EC)		
Article 3		
	1. In the light of the requirements referred to in Article 2, Member States shall take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1.	
	2. The preservation, maintenance and re-establishment of biotopes and habitats shall include primarily the following measures:	
	(b) upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones;	
Article 4		
	1. The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.	
	4. In respect of the protection areas referred to in paragraphs 1 and 2, Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.	
Habitats Directive (92/43/EEC)		
Article 6		
	2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.	
	3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be 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.	
4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.	
Failure to protect biodiversity outside of the Natura 2000 network	
Habitats Directive (92/43/EEC)	
Article 3	
3. Where they consider it necessary, Member States shall endeavour to improve the ecological coherence of Natura 2000 by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora, as referred to in Article 10.	
Article 10	
Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.	
Birds Directive (Directive 2009/147/EC)	
Article 3	
1. In the light of the requirements referred to in Article 2, Member States shall take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1.	
2. The preservation, maintenance and re-establishment of biotopes and habitats shall include primarily the following measures: (b) upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones	
Failure to protect Water Quality and Ecological Status	
Water Framework Directive (2000/60/EC)	
Article 4	
1. In making operational the programmes of measures specified in the river basin management plans:	
(a) For surface waters	
(i) Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;	
(ii) Member States shall protect, enhance and restore all bodies of surface water, subject to the application of subparagraph	
Failure to protect High Nature Value farmland	
Rural Development Regulations (No. 1305/2013)	
Article 6	
Minimum environmental requirements with which the afforestation of agricultural land must comply should be laid down ensuring that no inappropriate afforestation of sensitive habitats including areas under high natural value farming takes place and that the need for resilience to climate change is taken into account. On sites	

designated as Natura 2000, afforestation should be consistent with the management objectives of the sites concerned. Special attention should be paid to specific environmental needs for particular sites such as the prevention of soil erosion. More stringent rules should be provided for afforestation operations leading to the creation of larger forests in order to take into account the impact of scale of those operations on the ecosystems and to ensure that they comply with the objectives of the Green Infrastructure Strategy (1) and new EU Forest Strategy (2).”