Ireland's Agri-food Strategy Programme 2020-2030

Appropriate Assessment (AA)
Screening Statement

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CONTENTS

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1. INTRODUCTION

1.1 Purpose of this Screening Statement

RSK Ireland Ltd (hereafter RSK) has been instructed by the Department of Agriculture, Food and the Marine (DAFM) to carry out Appropriate Assessment (AA) Screening for Ireland's Agri-food Strategy (AFS) 2025-2030.

This screening statement has been completed by ADAS, an RSK company.

The process of AA was introduced under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive), transposed into Irish domestic law through the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). These Regulations also transpose Council Directive 79/409/EEC of 2 April 1979 on the Conservation of Wild Birds (the Birds Directive).

The obligation to undertake AA derives specifically from Article 6(3) and 6(4) of the Habitats Directive, and both involve a number of steps and tests that need to be applied in sequential order. Article 6(3) is concerned with the strict protection of sites, while Article 6(4) is the procedure for allowing derogation from this strict protection in certain restricted circumstances. Each step in the four stage assessment process precedes and provides a basis for other steps. The results at each step must be documented and recorded carefully so there is full traceability and transparency of the decisions made.

The purpose of AA is to protect sites designated as Special Areas of Conservation (SACs; under the Habitats Directive) and Special Protection Areas (SPAs; under the Birds Directive) – collectively known as Natura 2000 sites – including maintaining the integrity of the internationally important species and habitats for which they were designated. AA is not a prohibition on new development or activities but involves a case-by-case examination of the implications for each Natura 2000 site, its qualifying features and its conservation objectives. In general terms, implicit in Article 6(3) is an obligation to put concern for potential effects on Natura 2000 sites at the forefront of every decision made in relation to plans and projects at all stages, including decisions to provide funding or other support.

Screening is the process of establishing whether, in relation to a particular plan or project, AA is required. The purpose of this screening statement is therefore to

determine, on the basis of a preliminary assessment and objective criteria, whether Ireland's AFS, alone and in combination with other plans, could have significant effects on a Natura 2000 site in view of the site's conservation objectives. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by European Court of Justice case law. Therefore, where significant effects are likely, uncertain or unknown at screening stage, AA will be required.

The AA process in Ireland should be conducted in full consultation with the National Parks and Wildlife Service (NPWS). This report will be submitted to relevant staff within NPWS and will form the basis of discussions on the approach to further stages of the AA process.

1.2 Structure of this Statement

The areas considered in this screening statement, and their location in the report, are as follows:

- Description of the AFS, and characteristics of the AFS area – Chapter 3;
- Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives – Chapter 4;
- Initial assessment of likely effects (direct, indirect and cumulative) undertaken on the basis of available information as a desk study – Chapter 5; and
- Screening conclusions – Chapter 6.

2. APPROACH TO THE APPROPRIATE ASSESSMENT

2.1 Best Practice Guidance

Our AA approach takes into account the procedures provided under the following guidance documents:

- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities;
- DEHLG (2010) Circular NPW 1/10 & PSSP 2/10; and

We may also refer to the following EU guidance documents:

- EC (2001), 'Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive';

2.2 The AA Process

The guidance produced by DEHLG (2009) sets out a four stage process for carrying out AA. These stages are shown in Figure 2.1 below and described in the following sections.

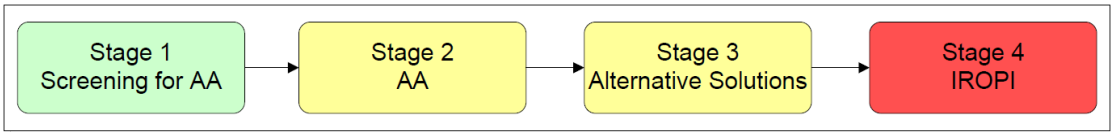


Figure 2.1: Stages in the AA Process

2.3 Stage 1 - Screening for AA

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- Whether a plan or project is directly connected to or necessary for the management of the site; and
- Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts can clearly be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impact.

This stage will involve identification of Natura 2000 sites and their qualifying interests and conservation objectives, as well as reviewing the likely measures to be included in the AFS. A preliminary impact assessment will be carried out to screen the AFS's measures for the likelihood of significant effects. This process will also identify whether the AFS is likely to have in-combination effects with other plans and programmes on Natura 2000 sites.

This screening statement is the main output of Stage 1 of the AA process; the results of which are presented in later chapters of this report. The statement will be issued to DAFM, and should feed into the relevant stage of the AFS; it will also feed into the SEA Scoping Report. This screening statement will be consulted on by the National Parks and Wildlife Service (NPWS).

2.4 Stage 2 - Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. Any possible implications for the affected site(s) in view of the site(s)' conservation objectives will be identified and characterised.

A project may have a significant effect on a Natura 2000 site if it:

- Reduces the area of an Annex I habitat, the habitat of an Annex II species, or the overall Natura 2000 site;
- Damages the physical quality of the environment (e.g. water quality and supply, soil compaction) within the Natura 2000 site;
- Causes serious or ongoing disturbance to species or habitats for which the Natura 2000 site is designated, e.g. increased noise or human activity;
- Results in direct or indirect damage to the size, characteristics or reproductive ability of populations within the Natura 2000 site; or

- Interferes with mitigation measures put in place for other plans or projects.

The assessment will consider how the effect on the integrity of sites could be avoided or improved by changes to the AFS measures. Depending on the outcome of the impact prediction and feasibility of changing the AFS measures, mitigation measures may need to be formulated to minimise the negative impacts of the AFS. If the final assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must proceed to Stage 3, or the plan or project should be abandoned.

The results of Stage 2 (AA) will be documented in a Natura Impact Statement which will be issued to NPWS and other relevant stakeholders as well as being published on DAFM's website. The Natura Impact Statement will feed into the SEA Consultation Environmental Report.

2.5 Stage 3 - Alternative Solutions

This stage examines any alternative solutions or options that could enable the plan to proceed without adverse effects on the integrity of a Natura 2000 site. The process must return to Stage 2 as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage 4.

It is expected that the AA, undertaken in collaboration with DAFM and NPWS, will successfully identify, assess and mitigate any adverse effects to the extent that no negative impact on the integrity of the Natura 2000 sites will occur. However, if Stage 3 is necessary, it would involve identification of alternative solutions (undertaken in conjunction with DAFM) and assessment of these as per the methodology set out for Stage 2. If no viable alternative solutions exist then the assessment would proceed to the next stage.

2.6 Stage 4 - IROPI

Stage 4 is the main derogation process of Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI, i.e. relating to human health or public safety reasons) for allowing a plan or project that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists. The extra protection measures for Annex I priority habitats come into effect when making the IROPI case.

Compensatory measures must be proposed and assessed; these must be practical, implementable, likely to succeed, proportionate and enforceable, and they must be approved by the Minister.

3. IRELAND'S AGRI-FOOD STRATEGY

3.1 Background to the AFS

The agri-food sector is a key aspect of Ireland's economy, community and culture, exporting to at least 175 countries around the world and contributing a significant aspect of Ireland's global profile and reputation. The agri-food sector is a key aspect of Ireland's economy, community and culture, exporting to at least 175 countries around the world and contributing a significant aspect of Ireland's global profile and reputation.

The AFS to 2030 builds on its predecessor programmes; Food Harvest 2020 and Food Wise 2025 in establishing a vision of how the sector is anticipated to develop over the period to 2030 for the benefit of its stakeholders and the wider Irish economy and environment.

At the time of writing, the strategy is still being drafted but discussions to date have focused on the implementation of four strategic priorities:

1) Future food and beverages that meet consumer and societal expectations
2) Primary producer viability and well-being
3) An innovative, technology-driven agri-food and bioeconomy sector
4) Climate smart, environmentally sustainable agri-food sector

Underpinning each of these policy areas is the need to respond to the key economic risk factors of the moment; Brexit and Covid-19 response as well as the EU Biodiversity Strategy and Farm to Fork Strategy and others, name….

Geographic Coverage

The geographic area covered by the Strategy comprises the whole of the Republic of Ireland and its territorial waters. The Irish agri-food industry comprises the agriculture, food and beverage, fishery, fish processing, forestry and forestry processing sectors.

3.2 Characteristics of the AFS Area

The geographical area of the AFS covers the territory of Ireland. As recommended by the former DEHLG guidance (2009), the AA will also take into account trans-

boundary impacts where it is identified that AFS measures have the potential to impact on Natura 2000 sites in Northern Ireland.

Ireland has 26 counties and is split into three Regional Assembly Areas: Northern and Western Region, Eastern and Midland Region and Southern Region.

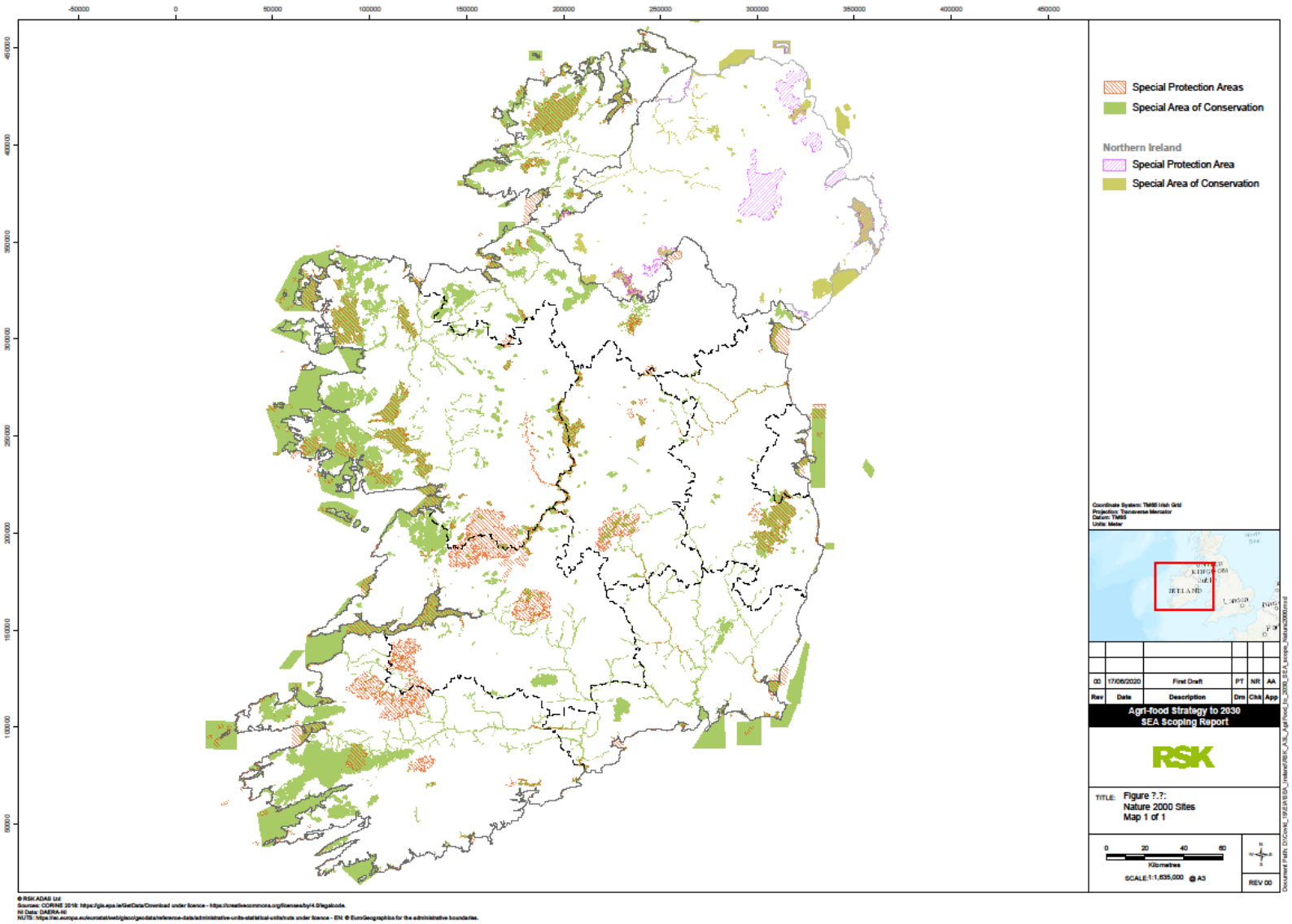
4. NATURA 2000 SITES IN IRELAND

4.1 Nature Conservation Designations

There are a number of nature conservation designations in Ireland:

- Special Areas of Conservation (SACs, including candidate SACs) are sites designated under the Habitats Directive, requiring the conservation of important, rare or threatened habitats and species (other than birds) across Europe.
- Special Protection Areas (SPAs, including proposed SPAs) are sites designated under the Birds Directive to conserve certain migratory or rare birds and their habitats.
- Ramsar sites are Wetlands of International Importance, declared through the Ramsar Convention of 1971 to which Ireland is a signatory.
- Natural Heritage Areas (NHAs, including proposed NHAs) are an Irish designation, considered important for the habitats present or which hold species of plants and animals whose habitat needs protection at the national scale.
- Statutory nature reserves are areas of importance to wildlife, typically owned by the State and protected under Ministerial order.

Those sites designated as SACs and/or SPAs, collectively known as Natura 2000 sites, are the focus of this AA screening assessment. As revealed in Ireland's 2002 National Biodiversity Plan, about 10% of the country is considered to be of prime importance for nature conservation; this comprises (in 2020) 439 SACs and 165 SPAs. Ireland's Natura 2000 sites are mapped in Figure 4.1.


Special Protection Areas
Special Area of Conservation
Northern Ireland
Special Protection Area
Special Area of Conservation
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Projection: Transverse Mercator
Datum: TM65
Units: Meter
IRELAND
00 17/06/2020 First Draft PT NR AA
Rev Date Description Drn Chk App
Agri-food Strategy to 2030
SEA Scoping Report
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Nature 2000 Sites
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The number of Natura 2000 sites in each region of Ireland are provided in Table 4.1 below (these are derived from GIS data; sites that cross regional boundaries are counted in each region in which they appear).

Table 4.1: Natura 2000 Sites in Ireland

	Special Areas of Conservation	Special Protection Areas
Border Region	76	39
Midland Region	47	19
Western Region	150	42
Dublin Region	13	10
Mid-East Region	33	11
Mid-West Region	67	14
South-East Region	29	15
South-West Region	53	29
Ireland Total*	**433 (plus 6 offshore sites)**	**165 (154)**

* The total number of sites may be less than the number of sites in each region added up, because some sites extend over more than one region.

Source: GIS datasets from NWPS, Ramsar Sites Information Service, National Monuments Service.

It can be seen from Table 4.1, that the density of European sites is far greater in the west of the country, and particularly in the counties of Galway, Donegal and Mayo. Here, Annex I habitats such as blanket bog, semi-natural grasslands and a range of water-dependent habitats are predominant in the SAC selection, alongside SPAs designated for seabirds, chough and corncrake. In the east of the country, in Wicklow, Waterford, Carlow and south-east Ireland, Natura 2000 sites tend to be concentrated along the major river catchments and in coastal areas. Blanket bog and other upland habitat sites are particularly well represented in the border region.

In terms of CORINE land cover, the DAHG (2013) Prioritised Action Framework for Natura 2000 report reveals the following classification of Natura 2000 sites:

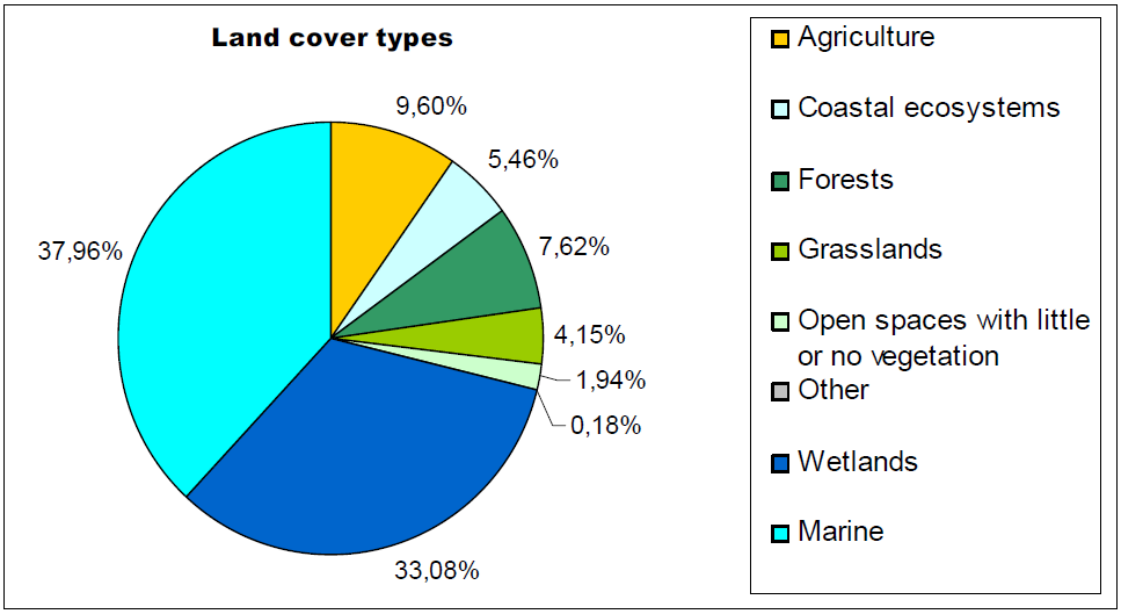

Table 4.2 below shows the number of SACs in each county, categorised according to predominant habitat type. Note that many sites contain more than one habitat type within the site. Some sites cross county boundaries and are mentioned in all counties concerned.

Table 4.2: Predominant Habitat Types of Ireland's SACs

	Peat-land	Mountain	Grass-land	Eskers	Machairs	Turloughs	Callows	Limestone Pavement	Cave/ Quarry	Wood-land	Rivers	Estuaries	Lakes	Coastal	Total
Carlow		1									3				**4**
Cavan	1	3									1		1		**6**
Clare	3	1	1			2		2	13	2	2	1	4	3	**34**
Cork	2	3								7	4	1	2	10	**29**
Donegal	11	3				1				2	2		9	20	**48**
Dublin			1							1		2		6	**10**
Galway	8	3	1	1	3	14	1	2	3	5			12	10	**63**
Kerry	3	3							4	3	3	1	3	8	**28**
Kildare	3										2		1		**6**
Kilkenny	4					1			1		2				**8**
Laois	2	1	1	1							1				**6**
Leitrim		4			1								1		**6**
Limerick	2	3	1							3	2				**11**
Longford						1									**1**
Louth		1									2			3	**5**
Mayo	9	4			1	8		1	4	2	1		7	12	**49**
Meath	1										3		1		**5**
Monaghan													1		**1**
Offaly	8	1		4			1			1	1		1		**17**
Roscommon	7		1	1		6	1						4		**20**
Sligo	3	2			1	1				1	1	1	2	4	**16**
Tipperary	3	6	2				1			1	5				**18**
Waterford		1								3	3			4	**11**
Westmeath	3			1			1				1		5		**11**
Wexford		2	1								2		2	10	**17**
Wicklow	2	1								5	2			5	**15**
Total	**75**	**43**	**9**	**8**	**6**	**34**	**5**	**5**	**25**	**36**	**43**	**6**	**56**	**95**	**445**

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4.2 Qualifying Features of Natura 2000 Sites

An appropriate assessment should focus exclusively on the qualifying interests of the Natura site affected (i.e. the reasons for which the site was designated) and must consider any impacts on the conservation objectives of the site. Qualifying features of interest for SACs include internationally important habitats listed on Annex I of the Habitats Directive (including priority types which are in danger of disappearance), and internationally important species, as listed on Annex II. For SPAs, qualifying features are those bird species listed on Annex I of the Birds Directive.

The conservation objectives for SACs are determined under Article 4 of the Habitats Directive and are intended to ensure that the Annex I habitats and/or Annex II species present onsite (the qualifying interests) are maintained in a favourable condition. The conservation objectives for SPAs are determined from the conservation interests of these sites. Conservation objectives are currently in preparation.

Ireland has a significant number of internationally important habitats totalling 58 of those listed in Annex I of the Habitats Directive. Of these, 16 are deemed to be priority habitats at the national level. Those priority habitats of most relevance to agricultural activities include dunes, orchid-rich grasslands, machair, turloughs, active peatlands, calcareous fens and coastal lagoons. Further details on the Annex I habitats present in Ireland are provided in Table 4.3 below.

Sixty-eight Irish species (of which eight are vagrants) must be afforded protection through Annex II of the Habitats Directive. The species of most relevance to agricultural activities include Slender Naiad (aquatic plant), Geyer's Whorl Snail, Marsh Fritillary (butterfly), Atlantic Salmon, Pollan (fish), Lesser Horseshoe Bat, Otter and Freshwater Pearl Mussel; further details are provided in Table 4.4.

Table 4.3: Annex I Habitats in Ireland

EU Habitat Code	EU Habitat Name	Classed as a priority habitat in Ireland	Overall status of habitat in Ireland	Number of SACs for which this is a qualifying feature
Grasslands				
6130	Calaminarian grasslands of the *Violetalia calaminariae*	No	Inadequate	3
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(*important orchid sites)	Yes	Bad	33
6230	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	Yes	Bad	9
6410	*Molinia* meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*)	No	Bad	14
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	No	Bad	3
6510	Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)	No	Bad	10
Peatlands				
7110	Active raised bogs	Yes	Bad	51
7120	Degraded raised bogs still capable of natural regeneration	No	Bad	53
7130	Blanket bog (*active only)	Yes	Bad	50
7140	Transition mires and quaking bogs	No	Bad	16
7150	Depressions on peat substrates of the *Rhynchosporion*	No	Bad	63
7210	Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*	Yes	Inadequate	17
7220	Petrifying springs with tufa formation (*Cratoneurion*)	Yes	Inadequate	19
Heath and scrub				
4010	Northern Atlantic wet heaths with *Erica tetralix*	No	Bad	39
4030	European dry heaths	No	Bad	48
4060	Alpine and Boreal heaths	No	Bad	33
Rocky habitats				

EU Habitat Code	EU Habitat Name	Classed as a priority habitat in Ireland	Overall status of habitat in Ireland	Number of SACs for which this is a qualifying feature
8110	Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)	No	Inadequate	3
8120	Calcareous and calschist screes of the montane to alpine levels (*Thlaspietea rotundifolii*)	No	Inadequate	3
8210	Calcareous rocky slopes with chasmophytic vegetation	No	Inadequate	12
8220	Siliceous rocky slopes with chasmophytic vegetation	No	Inadequate	15
8240	Limestone pavements	Yes	Inadequate	23
8310	Caves not open to the public	No	Favourable	9
8330	Submerged or partly submerged sea caves	No	Favourable	10
Sclerophilus scrub				
5130	*Juniperus communis* formations on heaths or calcareous grasslands	No	Favourable	22
Freshwater habitats				
3110	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	No	Inadequate	32
3130	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*	No	Bad	9
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	No	Bad	18
3150	Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation	No	Inadequate	9
3160	Natural dystrophic lakes and ponds	No	Inadequate	10
3180	Turloughs	Yes	Inadequate	45
3260	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	No	Inadequate	21
3270	Rivers with muddy banks with *Chenopodion rubri* p.p. and *Bidention* p.p. vegetation	No	Favourable	1
Dunes				
2110	Embryonic shifting dunes	No	Inadequate	33
2120	Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)	No	Inadequate	46

EU Habitat Code	EU Habitat Name	Classed as a priority habitat in Ireland	Overall status of habitat in Ireland	Number of SACs for which this is a qualifying feature
2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)	Yes	Bad	43
2140	Decalcified fixed dunes with *Empetrum nigrum*	Yes	Favourable	5
2150	Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)	Yes	Inadequate	11
2170	Dunes with Salix repens ssp.argentea (*Salix arenariae*)	No	Inadequate	11
2190	Humid dune slacks	No	Inadequate	15
21a0	Machairs (* in Ireland)	Yes	Inadequate	19
Forests				
91A0	Old sessile oak woods with *Ilex* and *Blechnum* in British Isles	No	Bad	40
91D0	Bog woodland	Yes	Favourable	11
91e0	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)	Yes	Bad	25
91J0	Taxus baccata woods of the British Isles	Yes	Bad	5
Coastal habitats				
1110	Sandbanks which are slightly covered by sea water all the time	No	Favourable	2
1130	Estuaries	No	Inadequate	19
1140	Mudflats and sandflats not covered by seawater at low tide	No	Inadequate	42
1150	Coastal lagoons	Yes	Bad	25
1160	Large shallow inlets and bays	No	Bad	22
1170	Reefs	No	Inadequate	41
1210	Annual vegetation of drift lines	No	Inadequate	24
1220	Perennial vegetation of stony banks	No	Inadequate	36
1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	No	Inadequate	28
1310	*Salicornia* and other annuals colonizing mud and sand	No	Favourable	23
1330	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	No	Inadequate	38
1410	Mediterranean salt meadows (*Juncetalia maritimi*)	No	Inadequate	33

EU Habitat Code	EU Habitat Name	Classed as a priority habitat in Ireland	Overall status of habitat in Ireland	Number of SACs for which this is a qualifying feature
1420	Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)	No	Bad	2

Table 4.4: Annex II Species in Ireland

EU Species Code	EU Species Name	Classed as a priority species in Ireland	Overall condition of species in Ireland	Number of SACs for which this is a qualifying feature
Invertebrates				
1013	Geyer's whorl snail (*Vertigo geyeri*)	No	Bad	14
1014	Narrow-mouthed whorl snail (*Vertigo angustior*)	No	Inadequate	13
1016	Desmoulin's whorl snail (*Vertigo moulinsiana*)	No	Inadequate	7
1024	Kerry slug (*Geomalacus maculosus*)	No	Favourable	7
1029	Freshwater Pearl Mussel (*Margaritifera margaritifera*)	No	Bad	19
1065	Marsh Fritillary (*Euphydryas aurinia*)	No	Inadequate	14
1092	White-clawed Crayfish (*Austropotamobius pallipes*)	No	Bad	15
Fish				
1095	Sea Lamprey (*Petromyzon marinus*)	No	Bad	12
1096	Brook Lamprey (*Lampetra planeri*)	No	Favourable	10
1099	River Lamprey (*Lampetra fluviatilis*)	No	Unknown	10
1103	Twaite shad (*Alosa fallax*)	No	Bad	5
5076	Pollan (*Coregonus autumnalis*)	No	Bad	3
1106	Atlantic Salmon (*Salmo salar*)	No	Inadequate	26
5046	Killarney Shad (*Alosa killarnensis*)	No	Favourable	0
Amphibians				

6284	Natterjack Toad (*Epidalea calamita*)	No	Bad	0
1213	Common Frog (*Rana temporaria*)	No	Favourable	0
1223	Leatherback Turtle (*Dermochelys coriacea*)	No	Unknown	0
Mammals				
1303	Lesser Horseshoe Bat (*Rhinolophus hipposideros*)	No	Inadequate	41
1309	Common Pipistrelle (*Pipistrellus pipistrellus*)	No	Favourable	0
5009	Soprano Pipistrelle (*Pipistrellus pygmaeus*)	No	Favourable	0
1317	Nathusius' Pipistrelle (*Pipistrellus nathusii*)	No	Unknown	0
1322	Natterer's Bat (*Myotis nattereri*)	No	Favourable	0
1314	Daubenton's Bat (*Myotis daubentonii*)	No	Favourable	0
1330	Whiskered Bat (*Myotis mystacinus*)	No	Favourable	0
1326	Brown Long-eared Bat (*Plecotus auritus*)	No	Favourable	0
1331	Leisler's Bat (*Nyctalus leisleri*)	No	Favourable	0
1334	Mountain Hare (*Lepidus timidus hibernicus*)	No	Favourable	0
1349	Bottle-nosed dolphin (*Tursiops truncatus*)	No	Favourable	1
1351	Harbour porpoise (*Phocaena phocaena*)	No	Favourable	2
1355	Otter (*Lutra lutra*)	No	Favourable	45
1357	Pine Marten (*Martes martes*)	No	Favourable	0
1364	Grey seal (*Halichoerus gyrpus*)	No	Favourable	10
1365	Harbour seal (*Phoca vitulina*)	No	Favourable	13
1345	Humpback Whale (*Megaptera novaengliae*)	No	Unknown	0
1349	Bottlenose Dolphin (*Tursiops truncatus*)	No	Favourable	0
1350	Short-beaked Common Dolphin (*Delphinus Delphi*)	No	Favourable	0
1351	Harbour Porpoise (*Phocoena phocoena*)	No	Favourable	0
2027	Killer Whale (*Orcina orca*)	No	Unknown	0
2029	Long-finned Pilot Whale (*Globicephala melas*)	No	Favourable	0
2030	Risso's Dolphin (*Grampus griseus*)	No	Favourable	0

2031	Atlantic White-sided Dolphin (*Lagenorhynchus acutus*)	No	Favourable	0
2032	White-beaked Dolphin (*Lagenorhynchus albirostris*)	No	Favourable	0
2034	Striped Dolphin (*Stenella coeruleoalba*)	No	Favourable	0
2035	Cuvier's Beaked Whale (*Ziphius curvirostris*)	No	Favourable	0
2038	Sowerby's Beaked Whale (*Mesoplodon bidens*)	No	Favourable	0
2618	Minke Whale (*Balaenoptera acutorostrata*)	No	Favourable	0
2621	Fin Whale (*Balaenoptera physalus*)	No	Favourable	0
5020	Blue Whale (*Baleanoptera musculus*)	No	Unknown	0
2624	Sperm Whale (*Physeter microcephalus*)	No	Favourable	0
5033	Northern Bottlenose Whale (*Hyperoodon ampullatus*)	No	Unknown	0
2619	Sei Whale (*Balenaoptera borealis*)	No	Unknown	0
Plants				
1393	Slender green feather-moss (*Hamatocaulis vernicosus*)	No	Favourable	8
1395	Petalwort (*Petallophyllum ralfsii*)	No	Favourable	20
1421	Killarney fern (*Trichomanes speciosum*)	No	Favourable	18
1528	Marsh saxifrage (*Saxifraga hirculus*)	No	Favourable	5
1400	White cushion moss (*Leucobryum glaucum*)	No	Favourable	0
1409	Sphagnum species	No	Inadequate	0
1413	Lycopodium group	No	Inadequate	0
1378	Cladonia subgenus Cladina	No	Inadequate	0
1376	Maërl	No	Bad	0
1833	Slender naiad (*Najas flexilis*)	No	Inadequate	24

Over 60% of the 31 bird species protected through the Birds Directive that now occur in Ireland on a regular basis belong to the breeding seabird and wintering waterbird groups. This has in part led to the situation that the majority (> 80%) of Ireland's SPAs are designated for these two bird groups. Other species listed on Annex I of the Birds Directive for which SPAs have been designated in Ireland include Chough, Peregrine, Hen Harrier, Corncrake, Kingfisher, Merlin, Golden Plover, Dunlin and Merlin (see Table 4.5 for more information). The bird species of most relevance to agricultural activities in Ireland are Bewick's Swan, Greenland White-fronted Goose, Chough, Corncrake, Hen Harrier and wader species (Golden Plover, Dunlin, Curlew).

Table 4.5: Annex I Bird Species in Ireland

EU Species Code	EU Species Name	Classed as a priority species in Ireland	Conservation status in Ireland	Residential status in Ireland	Number of SPAs for which this is a qualifying feature
Divers and Grebes					
A001	Red-throated Diver *(Gavia stellata)*	Yes	Amber	Wintering	5
A002	Black-throated Diver (*Gavia arctica)*	No	Amber	Wintering	0
A003	Great Northern Diver (*Gavia immer)*	No	Amber	Wintering	4
Seabirds					
A014	Storm Petrel (*Hydrobates pelagicus)*	Yes	Amber	Breeding	11
A015	Leach's Petrel (*Oceanodroma leucorhoa)*	Yes	Red	Breeding	1
Waterfowl					
A037	Bewick's Swan (*Cygnus columbianus bewickii)*	No	Red	Wintering	3
A038	Whooper Swan (*Cygnus Cygnus)*	Yes	Amber	Wintering	22
A395	Greenland White-fronted Goose (*Anser albifrons flavirostris)*	Yes	Amber	Wintering	21
A396	Barnacle Goose (*Branta leucopsis)*	Yes	Amber	Wintering	22
A059	Pochard (*Aythya farina*)	No	Red	Wintering	0
A065	Common Scoter (*Melanitta nigra*)	No	Red	Breeding	13
A067	Goldeneye (*Bucephala clangula*)	No	Red	Wintering	0
Birds of Prey and Owls					
A082	Hen Harrier (*Circus cyaneus)*	Yes	Amber	Breeding	8
A098	Merlin (*Falco columbarius)*	Yes	Amber	Breeding	6
A103	Peregrine (*Falco peregrinus)*	No	Green	Breeding	10
Crakes and Rails					
A122	Corncrake (*Crex crex)*	Yes	Red	Breeding	10
Waders					

EU Species Code	EU Species Name	Classed as a priority species in Ireland	Conservation status in Ireland	Residential status in Ireland	Number of SPAs for which this is a qualifying feature
A140	Golden Plover (*Pluvialis apricaria)*	Yes	Red	Wintering	36
A160	Curlew (*Numenius arquata*)	No	Red	Breeding and wintering	0
A466	Dunlin (*Calidris alpina schinzii*)	Yes	Red	Breeding	6
Herons and Egrets					
A170	Red-necked (Phalarope *Phalaropus)*	No	Red	Breeding	0
Gulls, Terns and Skuas					
A176	Mediterranean Gull (*Larus melanocephalus)*	No	Amber	Breeding	0
A177	Little Gull (*Larus minutus*)	No	Amber	Passage	0
A191	Sandwich Tern (*Sterna sandvicensis)*	Yes	Amber	Breeding	9
A192	Roseate Tern (*Sterna dougallii)*	Yes	Amber	Breeding	4
A193	Common Tern (*Sterna hirundo)*	Yes	Amber	Breeding	13
A194	Arctic Tern (*Sterna paradisaea)*	Yes	Amber	Breeding	16
A195	Little Tern (*Sterna albifrons)*	Yes	Amber	Breeding	8
Passerines					
A224	Nightjar (*Caprimulgus europaeus)*	No	Red	Breeding	0
A229	Kingfisher (*Alcedo atthis)*	No	Amber	Breeding	2
A282	Ring ouzel (*Turdus torquatus*)	No	Red	Breeding	0
A346	Chough (*Pyrrhocorax pyrrhocorax)*	Yes	Amber	Breeding	18

4.3 Relevant Natura 2000 Sites

The former DEHLG Guidelines (2009) state that screening should include:

i) *Any Natura 2000 sites within or adjacent to the plan or project area.*

ii) *Any Natura 2000 sites within the likely zone of impact of the plan or project. A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et. al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects.*

iii) *Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.*

The AFS applies to the whole territory of Ireland; agricultural land encompasses much of the country, and the measures are applicable to farmers and other land-owners. It is therefore not possible to screen out any Natura 2000 sites on a geographical basis. However, it is also unfeasible to assess Natura 2000 sites at a national scale.

Agricultural activities are more likely to affect certain habitats and species than others. This screening process therefore seeks to identify which qualifying features of Natura 2000 sites are currently under pressure from agricultural activities, and which are thought likely to be under threat in future. This information has been obtained from the Status of EU Protected Habitats and Species in Ireland reports (NPWS, 2019a, b, c). Natura 2000 sites with the Annex I habitats, Annex II or IV species[1] or Annex I bird species listed in Table 4.6 could potentially be adversely affected by the AFS.

Table 4.3: Habitats and Species under Pressure from Agricultural Activities

Annex I Habitats	Annex II/IV Species and Annex I Birds

[1] Species listed under Annex IV of the Habitats Directive are not qualifying features of SACs, however they are in need of strict protection at the EU level.

Grasslands	**Invertebrates**
6130 Calaminarian grasslands of the *Violetalia calaminariae*	1016 Desmoulin's whorl snail (*Vertigo moulinsiana*)
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(*important orchid sites)	1029 Freshwater pearl mussel (*Margaritifera margaritifera*)
6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	1065 Marsh Fritillary (*Euphydryas aurinia*)
6410 *Molinia* meadows on calcareous, peaty or clavey-silt-laden soils (*Molinion caeruleae*)	1092 White-clawed Crayfish (*Austropotamobius pallipes*)
6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	**Fish**
6510 Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)	5076 Pollan (*Coregonus autumnalis*)
Peatlands	1099 River Lamprey (*Lampetra fluviatilis*)
7110 Active raised bogs	1106 Atlantic Salmon (*Salmo salar*)
7120 Degraded raised bogs still capable of natural regeneration	**Amphibians**
7130 Blanket bog (*active only)	6284 Natterjack Toad (*Epidalea calamita*)
7140 Transition mires and quaking bogs	**Mammals**
7150 Depressions on peat substrates of the *Rhynchosporion*	1303 Lesser Horseshoe Bat (*Rhinolophus hipposideros*)
7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*	**Plants**
7220 Petrifying springs with tufa formation (*Cratoneurion*)	1833 Slender Naiad (*Najas flexilis*)
Rocky Habitats	**Birds**
8240 Limestone pavement	A037 Bewick's Swan (*Cygnus columbianus bewickii)*
Heath and scrub	A038 Whooper Swan (*Cygnus Cygnus)*
4010 Northern Atlantic wet heaths with *Erica tetralix*	A395 Greenland White-fronted Goose (*Anser albifrons flavirostris)*
4030 European dry heaths	A396 Barnacle Goose (*Branta leucopsis)*
4060 Alpine and boreal heaths	A059 Pochard (*Aythya farina*)
Freshwater habitats	A065 Common Scoter (*Melanitta nigra*)
3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	A067 Goldeneye (*Bucephala clangula*)
3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*	A082 Hen Harrier (*Circus cyaneus*)
3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	A098 Merlin (*Falco columbarius*)
3150 Natural euthrophic lakes with Magnopotamion or Hydrocharition-type	A122 Corncrake (*Crex crex*)

vegetation	
3160 Natural dystrophic lakes and ponds	A140 Golden Plover (*Pluvialis apricaria*)
3180 Turloughs	A160 Curlew (*Numenius arquata*)
3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	A466 Dunlin (*Calidris alpina schinzii*)
3270 Rivers with muddy banks with *Chenopodion rubri* p.p. and *Bidention* p.p. vegetation	A229 Kingfisher (*Alcedo atthis*)
Dunes	A282 Ring ouzel (*Turdus torquatus*)
2170 Dunes with *Salix repens* ssp.*argentea* (*Salix arenariae*)	A346 Chough (*Pyrrhocorax pyrrhocorax*)
21a0 Machairs (* in Ireland)	Lapwing
Coastal habitats	Yellowhammer
1210 Annual vegetation of drift lines	Barn Owl
1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	Red Grouse, twite, Whinchat,Skylark

5. LIKELY EFFECTS OF THE AFS

5.1 Overview

NPWS (2019a, b) identified pressures and threats facing 54 of 59 habitats assessed. Of these, the most frequent pressures were found in the agriculture category. Over 70% of habitats were impacted by pressures related to agricultural practices. Pressure from agriculture was ranked as high importance in more than 50% of habitats. The most prevalent sub-categories of pressure are A09 *Intensive grazing or overgrazing by livestock*, A10 *Extensive grazing or under-grazing*, A06 *Abandonment of grassland management*, A26 *Agricultural activities generating diffuse pollution to surface or ground waters*, A27 *Agricultural activities generating air pollution* and A28 *Agricultural activities generating marine pollution*.

Some habitat conservation measures exist at a national level. These are broadly in line with the main pressures outlined above and attempt to address some of these issues. Conservation measures largely centre on the implementation of agri-environment schemes, and in particular GLAS and EU LIFE programmes. They are particularly associated with conservation measure CA03: *Maintain existing agricultural practices and agricultural landscape features*. The main habitat types these measures are applied to are grasslands, dunes and heaths.

In general, pressures on Annex species are less severe. Of 60 species assessed by NPWS (2019a, c), 57% were found to be in favourable status with 30% in unfavourable (inadequate or bad) status. 72% of species showed stable or improving trends whereas 15% showed declining trends. Many species remain in favourable status, with population increases and range expansions for several bat species, Otter and Pine Marten. Species rated as inadequate or bad include Marsh Fritillary (though this species has shown population increases), whorl snails, Freshwater Pearl Mussel and Lesser Horseshoe Bat.

Impacts from agricultural activities (and to a lesser extent, forestry) can have an effect on a wide range of species – fish, molluscs, terrestrial mammals and vascular plants. This is partly due to the wide sphere of influence of some agricultural activities. For example, point sources of pollution from agriculture may influence a much wider area through groundwater supplies or nearby watercourses.

The most frequent conservation measures implemented at a sub-category level are CA10 Reduce/eliminate point pollution to surface or ground waters from agricultural activities, CA11 Reduce diffuse pollution to surface or groundwaters from agricultural activities and CB14 Manage drainage and irrigation operations and infrastructures.

Grazing and drainage are the two issues that have most effect on SPA bird species. For example, both under and overgrazing can have detrimental impacts on species such as Hen Harrier and Merlin. Excessive grazing and cutting will have negative impacts for Corncrake. Drainage is particularly detrimental to breeding waders such as Curlew, Golden Plover and Dunlin. In addition, eutrophication of water bodies is a key issue for duck species, Pochard, Common Scoter and Goldeneye.

More detail on potential effects are described in the following sections.

Grazing

Grazing issues can be subdivided into overgrazing and undergrazing. Along with increased fertiliser use, overgrazing is part of an overall process of intensification. In terms of SAC habitats, grazing issues will have disproportionate effects on grasslands, heath, mires and some dune systems. Almost all Annex I habitats within these categories have been rated as 'bad' in the latest NPWS assessment (2019a, b). A number of habitats have been especially prone to overgrazing issues (e.g. orchid-rich calcareous grassland, species-rich Nardus grasslands), blanket bog, raised bogs, limestone pavement). Overgrazing by sheep is a particular issue. For other habitats, in recent years, under-grazing and abandonment have become more important detrimental factors. These include Molinia meadows, fens, limestone pavement and heath.

Grazing issues can also have negative impacts on a range of species. Overgrazing is an important factor in the decline of whorl snail species whereas under-grazing is an issue for Marsh Fritillary (associated with Molinia meadows). Appropriate grazing levels are also key in providing suitable structural vegetation conditions for a range of breeding birds. These include Hen Harrier, Merlin and breeding waders.

Fertiliser use and N deposition

Problems associated with inappropriate grazing levels are often compounded by increases in fertiliser use. Thus, already stressed habitats are prone to further degradation under heavy and continued fertiliser use. This is particularly applicable to grasslands.

For example, the decline of lowland hay meadows is partly attributable to the application of fertilisers and their subsequent conversion to more improved grasslands. Persistent use of fertilisers will lead to a reduction in diversity, favouring a small suite of species suited to nutrient-rich conditions (e.g. Perennial Rye-grass and White Clover). Fertiliser use will also have detrimental impacts on a range of other habitats such as bogs and fens. The application of nitrogen and phosphorus are especially problematic (see diffuse pollution below). Nitrogen, in the form of ammonia, associated with intensive pig and poultry farming, is a key concern with respect to low nutrient habitats such as blanket bog, wet and dry heath.

Intensification of grasslands through grazing and increased fertiliser use has also had negative impacts on a number of species. For example, range increases in lesser horseshoe bat populations have been curtailed by a lack of suitable foraging habitat. Conversion and intensification of small areas of habitat have negatively impacted on Corncrake numbers, and those of other traditional farmland bird species.

Diffuse pollution of surface water and groundwater

In addition to intensification impacts on the immediate surrounding habitat, fertiliser applications of N and P can cause diffuse pollution of surface water and groundwater. In recent years, there have been significant increases in nutrient (especially phosphate), sediment and dissolved organic carbon from agricultural activities. In addition, increased rainfall and, in particular, an increase in storm events as a result of climate change, is likely to result in increases in direct losses of chemical fertilisers from agricultural land. Diffuse pollution is having particularly deleterious effects on a range of water-dependent habitats. These include peatlands (bogs, fens), wet grasslands (e.g. Molinia grasslands) and watercourses and water bodies themselves. These last include the following Annex 1 habitats: oligotrophic isoetid lake habitats, hard-water lake habitats, turloughs, acid oligotrophic lake habitats and vegetation of flowing waters.

Species associated with these habitats and especially those suited to low nutrient conditions will also be detrimentally impacted. These include Slender Naiad and Pollan. A range of other species will be affected by changes in water nutrient status as well as increases in sediment loading. These would include fish species such as Atlantic Salmon, lampreys and shad, as well as Freshwater Pearl Mussel and White-clawed Crayfish. A small number of SPA bird species are also tied to shallow water bodies for breeding and these would also be impacted by diffuse pollution. Species affected include Pochard, Common Scoter and Goldeneye.

Drainage

Draining of agricultural land can result in severe alterations to major nutrient sinks and sources, increases in soil temperature and humidity and changes to soil structure and composition. The drainage of bogs and wet grasslands as part of the intensification process can result in changes to hydraulic conditions, leading to increased sediment load to water; and a more direct pathway to rivers for pollutants originating on 'dry land'. Oligotrophic and oligo-mesotrophic waters and natural eutrophic and dystrophic lakes in Ireland are under extreme pressure from reduced water levels caused by such activities. *Vertigo* species of snail are also affected by the drying out of fens as it reduces the suitability of their preferred habitat.

Drainage of wet grasslands and peatlands is also particularly detrimental for breeding wader species (Curlew, Dunlin and Golden Plover+++++).

Reduced breeding success or increased predation, possibly resulting in reduced population viability

Drainage and intensification has reduced the breeding habitat available for ground nesting birds, whilst it has also increased predation of such species through creation of suitable habitat for predators. Effects are likely to be highest at farmland edges, e.g. predation by corvids such as Hooded Crows.

The main reason for the decline in Freshwater Pearl Mussel populations is because of a lack of recruitment, i.e. the species has been unable to successfully reproduce, or the young mussels have not survived (DAFM, 2013). This is in part because the gravel river beds within which the mussels live have become infiltrated by sediment and/or overgrown by algae or macrophytes, typically as a result of agricultural activities. The population at several of the priority mussel catchments will become extinct within a generation if the habitat quality within those catchments is not improved.

5.2 Cumulative Impacts

Continuous grazing impacts, coupled with intensification through fertilisers, will result in piecemeal loss of that habitat and increased fragmentation, along with a decline in species which depend upon these lost habitats. Similarly, cumulative effects of numerous point and diffuse sources of pollution will have an impact on aquatic habitats (IFI, 2014). Certain species and habitats may also be susceptible to more than one type of impact. Wetland or freshwater species may be affected simultaneously by independent upstream activities including sedimentation and pollution from fertilisers.

5.3 In-Combination Effects

Assessing the possible effects the AFS may have on a Natura 2000 site (in view of its conservation objectives) in combination with other plans or projects is a key part of the AA process.

The plans and programmes that have been considered are listed in Appendix A to the SEA Scoping Report. Some of these, such as the five River Basin Management Plans produced by the EPA (2009-2010) and Ireland's National Biodiversity Action Plan produced by the NPWS (2011) contain environmental protection objectives seeking to benefit Natura 2000 sites that the AFS could support.

However, certain plans and programmes could potentially have negative impacts on Natura 2000 sites in-combination with the AFS. These are listed below and will be assessed at the next stage of the process:

- **Republic of Ireland**
    - DAFM (2015). National Strategic Plan for Sustainable Aquaculture Development;
    - Department of Communications, Energy and Natural Resources (DCENR) (2014) Offshore Renewable Energy Development Plan;
    - Department of Public Expenditure and Reform (2011) Infrastructure and Capital Investment 2012-2016: Medium Term Exchequer Framework.
    - DCENR (2014) Draft Bioenergy Plan;
    - DAFM (2014) Rural Development Programme 2014-20;
    - DAFM (2014) Forestry Programme for Ireland.
    - Government of Ireland (2018) National Planning Framework; and

- Fine Gael, Fianna Fail, Green Party (2020) Programme for Government – Our Shared Future.

- **Northern Ireland / UK**
  - Department for the Economy (DfE) (2017) Industrial Strategy for Northern Ireland; and
  - UK Fisheries Bill (in progress).

- **Europe**
  - EC (2020) Farm to Fork Strategy; and
  - EC CAP Strategic Plans (in progress).

6. SCREENING CONCLUSION

This screening process, undertaken in accordance with the Habitats Directive and national legislation and guidance, has established that:

- The AFS is not directly connected to or necessary for the management of Natura 2000 sites (though it does have the potential to enhance management of Natura 2000 sites intimately associated with agricultural activities); and
- That the AFS, both alone and in combination with other plans and programmes, could have significant effects on Natura 2000 sites (in view of their conservation objectives) depending on where and how certain agricultural activities are implemented.

As such, it is considered that a Stage 2 Appropriate Assessment is required. This screening statement has been issued to the statutory consultation body, NPWS, for confirmation; it has also been published on the DAFM website (for information only). If deemed necessary by NPWS, Stage 2 will be carried out as described in Section 2.4.

REFERENCES

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