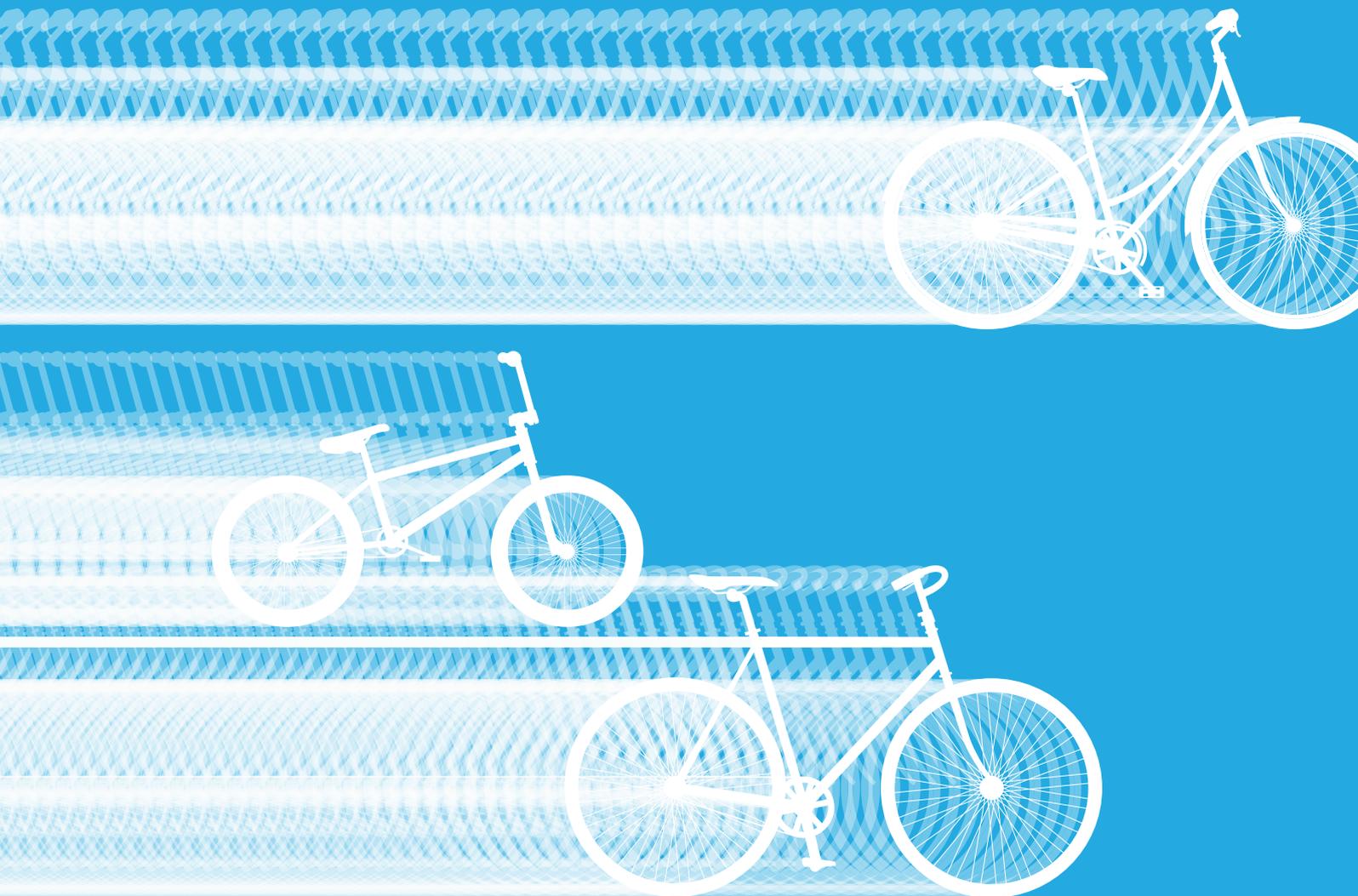


Greater Dublin Area
**Cycle
Network
Plan**

Appropriate Assessment
- Screening Report



Greater Dublin Area Cycle Network

Appropriate Assessment – Screening Report

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1.0 INTRODUCTION

1.1 Introduction

Roughan & O'Donovan – AECOM Alliance (ROD- AECOM) was appointed by the National Transport Agency (NTA) to undertake a Habitats Directive Assessment (Screening for Appropriate Assessment) for the Greater Dublin Area Cycle Network. This report has been prepared to determine the potential effects, if any, of the proposed plan on nearby sites with European conservation designations (i.e. Natura 2000 sites). The purpose of this assessment is to determine the appropriateness, or otherwise, of the proposal in the context of the conservation status of such sites.

The proposed Greater Dublin Area Cycle Network Plan is being developed by the National Transport Authority to support strategic planning of transport in the Greater Dublin Area and to promote increased recourse to cycling as a means of transport. The Network Plan aims to set a framework for the development consent of such projects and therefore is subject to Habitats Directive Assessment.

The Cycle Network Plan comprises the Urban Network, Inter-Urban Network and Green Network and is developed for each of the seven local authorities comprising of the Greater Dublin Area (GDA), namely:

- Dublin City Council (DCC);
- Dun Laoghaire Rathdown County Council (DLRCC);
- Fingal County Council (FCC);
- Kildare County Council (KCC);
- Meath County Council (MCC);
- South Dublin County Council (SDCC);
- Wicklow County Council (WCC).

The Cycle Network Plan identifies in a consistent, clear and logical manner the following cycle networks within the GDA:

- The Urban Cycle Network (as described in 3.2.1 of the NTA Cycle Manual) at the Primary, Secondary and Feeder level;
- The Inter-urban Cycle Network linking the relevant sections of the Urban Network and including the elements of the National Cycle Network within the GDA. It shall also include linkages to key transport locations outside of urban areas such as airports and ports; and
- The Green Route Network being cycle routes developed predominately for tourist, recreational and leisure purposes.

The Cycle Network Plan for each local authority area is consistent with each adjacent plan with continuity of route networks across administrative boundaries.

1.2 The Requirement for an Assessment under Article 6

The requirement for Appropriate Assessment is set out in the EU Habitats Directive (92/43/EEC) in Article 6 (3) which states:

“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and

projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives."

The Habitats Directive is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations, 2011 (consolidating the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in recent CJEU Judgements) (hereafter referred to as the Habitats Regulations) and the Planning and Development (Amendment) Act, 2010.

1.3 The Aim of this Report

This Screening for Appropriate Assessment (Stage 1) has been prepared in accordance with current guidance and provides an ecological impact assessment for the proposed plan.

The Screening provides the information required to establish whether or not the proposed development is likely to have a significant impact on the Natura sites in the context of their conservation objectives and specifically on the habitats and species for which the Natura 2000 sites have been designated.

By undertaking the assessment in a step by step manner in relation to the habitats and species of the Natura 2000 sites, this report seeks to inform the screening process required as the first stage of the process pursuant to Article 6.3 of the EU Habitats Directive.

2.0 THE APPROPRIATE ASSESSMENT PROCESS

2.1 Guidance

Article 6(3) of the EU Habitats Directive (92/43/EEC) defines the requirement for Appropriate Assessment of certain plans and projects. In order to inform the requirements of this Screening Report the following guidance documents have been referred to:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPWS 1/10 & PSSP 2/10;
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;*
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (EC Environment Directorate-General, 2000);
- *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence.* Opinion of the European Commission (European Commission, January 2007).'

2.2 Stages of Article 6 Assessment

The European Commission's guidance promotes a staged process, as set out below, the need for each being dependent upon the outcomes of the proceeding stage.

- (1) Screening
- (2) Appropriate Assessment
- (3) Assessment of Alternative Solutions
- (4) Assessment where no alternative solutions remain and where adverse impacts remain.
 - The “IROPI test” (Imperative Reasons of Over-riding Public Interest) and compensatory measures.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures.

Stage 1 of the process is intended to identify whether the plan is ‘likely to have a significant effect’ upon a European site, referred to as ‘Screening for Appropriate Assessment’.

If the screening process identifies effects 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 is undertaken without the inclusion of mitigation, unless potential impacts clearly can 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.

Section 177U of the Planning and Development Act 2010 states that the competent authority shall determine that an appropriate assessment of the proposed development is not required if it can be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on a European site.

Stage 2 of the process considers any potential impacts in greater detail including whether further mitigation measures are required. If an adverse impact upon the site’s integrity cannot be ruled out then Stage 3 will need to be undertaken to assess whether alternative solutions exist. If no alternatives exist that have a lesser effect upon the Natura 2000 site/s in question, the project can only be implemented if there are ‘imperative reasons of overriding public interest’, as detailed in Article 6(4). In essence, the work at Stage 1 will determine whether further stages of the process are required.

This report includes the testing required under Stage 1: Screening for Appropriate Assessment.

2.3 Report Format

This Screening Report includes the assessment and testing required under Stage 1 – the Screening Process. In complying with the obligations under Article 6(3) and to be consistent with the Guidance for Planning Authorities, this report has been structured as follows:

- Description of the Plan/Project;
- Identification of Natura 2000 sites, and the associated Conservation Objectives, which may be potentially affected;
- Identification and description of individual and cumulative impacts likely to result from the Plan/Project;

- Assessment of the significance of the impacts identified above on site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects.

3.0 DESCRIPTION OF THE PLAN

The National Transport Authority has prepared a Cycle Network Plan for the Greater Dublin Area (Counties Dublin, Kildare, Meath and Wicklow) which will set out the cycling transport infrastructure requirements and the cycling transport policy for the region. The NTA has indicated that its overall strategy will continue to focus on modal shift towards public transport, cycling and walking and away from the private motor car through a broad set of transport and planning policies.

The GDA Cycle Network Plan has identified the existing cycle network in the GDA, its quality of service and gaps in the network. This information along with an assessment of cycle travel demand allows for the provision of a cycle network plan that allows for future schemes to be developed based on the plan mapping and objectives.

The Plan outlines the following type of cycle provisions in the GDA as follows:

- The Urban Cycle Network (as described in 3.2.1 of the NTA Cycle Manual) at the Primary, Secondary and Feeder level;
- The Inter-urban Cycle Network linking the relevant sections of the Urban Network and including the elements of the National Cycle Network within the GDA. It shall also include linkages to key transport locations outside of urban areas such as airports and ports; and
- The Green Route Network being cycle routes developed predominately for tourist, recreational and leisure purposes.

4.0 NATURA 2000 SITES

4.1 Designated Sites in the Vicinity of the Project

Section 3.2.3 of the Guidance for Planning Authorities states that the approach to screening can be different for different plans and projects and will depend on the scale and the likely effects of the project. A key variable that will determine whether or not a particular Natura 2000 site is likely to be negatively affected is its physical distance from the project site.

Furthermore UK guidance (Scott Wilson et al., 2006) state that a distance of 15km is currently recommended in the case of plans. 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. 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 principles. In the case of sites with rare 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 upstream and / or downstream catchment.

Given the nature of this plan and the scale of the projects identified, it is considered that for the purpose of a this screening exercise the likely zone of impact is considered to be all sites within 15km of the proposal.

A review of the National Parks and Wildlife Service database has identified the following Natura 2000 sites as having potential to be negatively impacted by the proposed Plan.

Table 4.1 Natura 2000 (Special Areas of Conservation) sites located within 15km of any cycle plan, conservation interests and vulnerability / Management Issues.

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
000006	Killyconny Bog	7110	*Active raised bogs			<ul style="list-style-type: none"> • Peat cutting • Drainage • Agricultural reclamation
		7120	Degraded raised bogs still capable of natural regeneration			
000199	Baldoyle Bay	1140	Mudflats and sandflats not covered by seawater at low tide			<ul style="list-style-type: none"> • Bait Digging • Wildflowing • Spartina may be causing unfavourable interactions with intertidal and salt marsh habitats
		1310	<i>Salicornia</i> and other annual colonizing mud and sand			
		1330	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)			
000202	Howth Head	1230	Vegetated sea cliffs off the Atlantic and Baltic coasts			<ul style="list-style-type: none"> • Heath fires, • Excess visitors pressers • Possible air pollution
		4030	European dry heaths			
000204	Lambay Island	1170	Reefs	1364	<i>Halichoerus grypus</i>	<ul style="list-style-type: none"> • Some overfishing
					<i>Phoca vitulina</i>	
000205	Malahide Estuary	1140	Mudflats and sandflats not covered by seawater at low tide			<ul style="list-style-type: none"> • Recreational activities on dunes • Water pollution, from sewage plants • Infilling
		1310	<i>Salicornia</i> and other annuals colonising mud and sand			
		1320	Spartina sward (<i>Spartinion marintiae</i>)			
		1330	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)			

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ issues	Management
		1410	Mediterranean salt meadows (<i>Juncetalia maritime</i>)				
		2120	Shifting dunes along shoreline with <i>Ammophila arenaria</i> (white dunes)				
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)*				
000206	North Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide	1395	<i>Petalophyllum ralfsii</i>	<ul style="list-style-type: none"> • Recreational pressure • Grazing by rabbits • Potential impact from water abstraction affecting humid dunes slacks • Risk of oil spillages from Dublin Port • Polluted intertidal water not having an impact • Possible extensions of the golf courses 	
		1210	Annual vegetation of drift lines				
		1310	<i>Salicornia</i> and other annuals colonizing mud and sand				
		1330	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)				
		1410	Mediterranean salt meadows (<i>Juncetalia maritime</i>)				
		2110	Embryonic shifting dunes				
		2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)				
		2130	*Fixed coastal dunes with herbaceous vegetation (grey dunes)				
		2190	Humid dune slacks				
000208	Rogerstown Estuary	1130	Estuaries			<ul style="list-style-type: none"> • Loss of intertidal flats and salt marsh due to land filling • Landfill sites is a major source of pollution to estuary • Raw sewage from local town and rich agricultural hinterland • Dunes are highly vulnerable 	
		1140	Mudflats and sandflats not covered by seawater at low tide				
		1310	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)				

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
		1410	Mediterranean salt meadows (<i>Juncetalia maritima</i>)			due to natural (erosion) and anthropogenic factors
		2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)			
		2130	*Fixed coastal dunes with herbaceous vegetation (grey dunes)			
000210	South Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide			<ul style="list-style-type: none"> • Reclamation for industrial and or infrastructural purposes • Pollution has no apparent impact on flora and fauna • Risk of pollution from oils spillage from port and shipping
000391	Ballynafagh Bog	7110	* Active raised bogs			<ul style="list-style-type: none"> • Peat cutting • Drainage • Fire • afforestation
		7120	Degraded raised bogs still capable of natural regeneration			
		7150	Depressions on peat substrates of the <i>Rhynchosporion</i>			
000396	Pollardstown Fen	7210	*Calcareous fens with <i>Cladium mariscus</i> and spesces of the <i>Caricion davalliana</i>	1013	<i>Vertigo geyeri</i>	<ul style="list-style-type: none"> • Any interference with the Curragh aquifer
		7220	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)	1014	<i>Vertigo angustior</i>	
		7230	Alkaline fens	1016	<i>Vertigo moulinsiana</i>	
000397	Red Bog, Kildare	7140	Transition mires and quaking bogs			<ul style="list-style-type: none"> • Lowering of water table due to quarrying • Drainage • Agricultural run off

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
000713	Ballyman Glen	7720	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)			<ul style="list-style-type: none"> • Nutrient run off from intensively managed agricultural grassland • Petrifying springs threatened by over extraction of water locally
		7230	Alkaline fens			
000714	Bray Head	1230	Vegetated sea cliffs of the Atlantic and Baltic coasts			<ul style="list-style-type: none"> • Burning • Development • Erosion • Grazing • Reclamation • Spread of Bracken • Trampling damage
		4030	European dry heaths			
000716	Carriggower Bog	7140	Transition mires and quaking bogs			<ul style="list-style-type: none"> • Dumping • Forestry • Grazing • Run-off • Water level management
000717	Deputy's Pass Nature Reserve	91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles			<ul style="list-style-type: none"> • Commercial forestry • Dumping • Footpaths • Horse riding • Invasive species • Lack of regeneration • Small size
000719	Glen of the Downs	91A0	Old sessile oak woods with <i>Ilex</i> and Blechnum in the British Isles			<ul style="list-style-type: none"> • Road widening
000725	Knocksink Wood	7220	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)			<ul style="list-style-type: none"> • Amenity
		91E0	*Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>)			
000729	Buckroneys-	1210	Annual vegetation of drift lines			<ul style="list-style-type: none"> • Intensive agricultural and

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
	Brittas Dunes and Fen	1220	Perennial vegetation of stony banks			<ul style="list-style-type: none"> recreational pressures • Stocking at high densities • Golf courses impact on hydrology • Fen threatened by lowering of water table though drainage and water abstraction • Reclamation of marginal areas of the fen would be detrimental
		2110	Embryonic shifting dunes			
		2120	Shifting dunes along the shoreline with <i>ammophila arenaria</i> (white dunes)			
		2130	*Fixed coastal dunes with herbaceous vegetation (grey dunes)			
		2150	*Atlantic decalcified fixed dunes (Calluno- Ulicetea)			
		2170	Dunes with <i>Salix repens</i> spp. <i>Argentea</i> (<i>Salix arenariae</i>)			
		2190	Humid dune slacks			
		7230	Alkaline fens			
000733	Vale of Clara (Rathdrum Wood)	91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles			<ul style="list-style-type: none"> • Conifer plantations • Deer poaching • Exotic species • Grazing • Illegal tree felling • Industrial developments • Litter and dumping • Recreational activities • Residential development • Water quality
000770	Blackstairs Mountains	4010	Northern Atlantic wet heath with <i>Erica tetralix</i>			<ul style="list-style-type: none"> • All terrain vehicles (ATVs) • Burning • Decline of the Red Grouse population • Grazing • Erosion • Group water schemes
		4030	European dry heaths			

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
000781	Slaney River Valley	1130	Estuaries	1029	<i>Margaritifera margaritifera</i>	<ul style="list-style-type: none"> • Ground water quality • Risk from nutrient runoff from agricultural and domestic and industrial activities • Reclamation
		1140	Mudflats and sandflats not covered by seawater at low tide	1095	<i>Petromyzon marinus</i>	
		3260	<i>Water courses of plain to montane levels with Ranunculion fluitantis and Callitriche-Batrachion vegetation</i>	1096	<i>Lampetra planeri</i>	
		91A0	Old Sessile oak woods with Ilex and Blechnum in the British Isles	1099	<i>Lampetra fluviatilis</i>	
		91EO	*Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>)	11033	<i>Alosa fallax</i>	
				1106	<i>Salmo salar</i> (only in fresh water)	
				1355	<i>Lutra lutra</i>	
			1365	<i>Phoca vitulina</i>		
000925	The Long Derres, Edenderry	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites)			<ul style="list-style-type: none"> • Calcareous grassland vulnerable to changes in grazing and fertilization • Encroachment of scrub by afforestation with conifers • Gravel pits: Gravel extraction, dumping and overuse by motorbikes
001209	Glenasmole Valley	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites)			<ul style="list-style-type: none"> • Agricultural intensification • Construction works at the reservoirs • Dumping

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
		6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)			<ul style="list-style-type: none"> • Grazing within the woodland • Housing development • Impacts of forestry and woodland management • Inappropriate development of recreational facilities • Natural succession • Pollution, leachate from landfill • Spread of alien species and amenity planting
		7220	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)			
001387	Ballynafagh Lake	7230	Alkaline fens	1016	<i>Vertigo moulinsiana</i>	<ul style="list-style-type: none"> • No significant threats • Water levels • Proposal to reopen feeder canal may have an impact on <i>Vertigo moulinsiana</i> populations
				1065	<i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>	
001398	Rye Water Valley / Carton	7720	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)	1014	<i>Vertigo angustior</i>	<ul style="list-style-type: none"> • Woodland clearance • Pollution from agricultural and • Petrifying springs and vertigo are particular vulnerable to urban development and to dumping
				1016	<i>Vertigo moulinsiana</i>	
001459	Clogher Head	1230	Vegetated sea cliffs of the Atlantic and Baltic coasts			<ul style="list-style-type: none"> • Overgrazing • Land reclamation • Burning • Building • amenity
		4030	European dry heaths			
001742	Kilpatrick Sandhills	1210	Annual vegetation of drift lines			<ul style="list-style-type: none"> • Grazing by cattle • Recreational activities, increased visitors to the area would be detrimental to the site unless carefully managed
		2110	Embryonic shifting dunes			
		2120	Shifting dunes along the shorelines with			

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ issues	Management
			<i>ammophila arenaria</i> (white dunes)			<ul style="list-style-type: none"> Erosion 	
		2130	*Fixed coastal dunes with herbaceous vegetation (grey dunes)				
		2150	Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)				
001757	Holdenstown Bog	7140	Transition mires and quaking bogs			<ul style="list-style-type: none"> Infilling Drainage Agricultural runoff Currently no public access therefore recreational pressures are low Natural erosion 	
001766	Magherabegg Dunes	1210	Annual vegetation of drift lines				
		2110	Embryonic shifting dunes				
		2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)				
		2130	*Fixed coastal dunes with herbaceous vegetation (grey dunes)				
		2150	*Atlantic decalcified fixed dunes (<i>Calluno- Ulicetera</i>)				
		7220	*Petrifying springs with tufa formation (Cratoneurion)				
001810	White Lough, Ben Lough and Lough Doo	3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> species.	1092	<i>Austropotamogeton pallipes</i>	<ul style="list-style-type: none"> Agricultural improvement Crayfish plague risk 	
001957	Boyne Coast and Estuary	1130	Estuaries				<ul style="list-style-type: none"> Infilling Pollution Dunes are subject to intense recreational pressures which is likely to increase due to
		1140	Mudflats and sandflats not covered by seawater at low tide				

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
		1310	Salicornia and other annuals colonizing mud and sand			growing population in the general area
		1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)			
		1410	Mediterranean salt meadows (<i>Juncetalia maritima</i>)			
		2110	Embryonic shifting dunes			
		2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)			
			*Fixed coastal dunes with herbaceous vegetation (grey dunes)			
002120	Lough Bane and Lough Glass	3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara species</i>	1092	<i>Austropotamogeton pallipes</i>	<ul style="list-style-type: none"> • Eutrophication from agricultural runoff • Afforestation • Recreational (boating) pressures
002121	Lough Lene	3140	Hard oligo-mesotrophic waters with benthos vegetation of <i>Chara species</i> .	1092	<i>Austropotamogeton pallipes</i>	<ul style="list-style-type: none"> • Angling • Crayfish population status • Eutrophication • Grazing • Invasive species • Reclamation • Recreation/amenity • Water abstraction
002122	Wicklow Mountains	3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littoreletia uniflora</i> and/or of <i>Isoetes-Nanojuncetia</i>	1355	<i>Lutra lutra</i>	<ul style="list-style-type: none"> • Overgrazing by sheep and deer • Localised peat extraction and burning • Spread of non native species • Recreational activities potential
		3160	Natural dystrophic lakes and ponds			

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
		4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>			<ul style="list-style-type: none"> for disturbance to habitats and species • Peat erosion
		4030	European dry heaths			
		4060	Alpine and Boreal heaths			
		6230	*Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)			
		7130	Blanket bogs (*if active only)			
		8110	Siliceous scree of the montane to snow level (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladanii</i>)			
		8210	Calcareous rock slopes with chasmophytic vegetation			
		8220	Siliceous rocky slopes with chasmophytic vegetation			
		91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles			
002141	Mountmellick			1016	<i>Vertigo moulinsiana</i>	<ul style="list-style-type: none"> • Dredging of canal and reopening of canal navigation channels • drainage
002162	River Barrow and River Nore	1130	Estuaries	1016	<i>Vertigo moulinsiana</i>	<ul style="list-style-type: none"> • Water quality, under threat from pollution caused by increased fertiliser application, sewage and industrial waste • Infilling and agricultural intensification • <i>Alosa fallax</i> may be vulnerable
		1140	Mudflats and sandflats not covered by seawater at low tide	1029	<i>Margaritifera margaritifera</i>	
		1310	<i>Salicornia</i> and other annuals colonizing mud and sand	1092	<i>Austroptamobius pallipes</i>	

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ issues	Management
		1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)	1095	<i>Petromyzon marinus</i>	<ul style="list-style-type: none"> to angling pressure Aquaculture 	
		1410	Mediterranean salt meadows (<i>Juncetalia maritima</i>)	1096	<i>Lampetra planeri</i>		
		3260	Water courses of plain to montane levels with <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	1099	<i>Lampetra fluviatilis</i>		
		4030	European dry heaths	1103	<i>Alosa fallax</i>		
		6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	1106	<i>Salmo salar</i> (only in freshwater)		
		7220	*Petrifying springs with tufa formation (<i>Cratoneurion</i>)	1355	<i>Lutra lutra</i>		
		91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 1990	1421	<i>Trichomanes speciosum</i>		
		91E0	*Alluvial forest with <i>Alnus Glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	1990	<i>Margaritifera durrovensis</i>		
002193	Irelands Eye	1220	Perennial vegetation of stony banks			<ul style="list-style-type: none"> Visitor pressure 	
		1230	Vegetated sea cliffs of the Atlantic and Baltic coasts				
002249	The Murrrough Wetlands	1210	Annual vegetation of drift lines			<ul style="list-style-type: none"> Drainage, building of an embankment, reclamation, levelling of sand hills and afforestation Water quality due to agricultural intensification Housing development 	
		1220	Perennial vegetation of stony banks				
		1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Mediterranean salt meadows (<i>Juncetalia maritima</i>)				

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ Management issues
		7210	*Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Cladonia davalliana</i>			<ul style="list-style-type: none"> • Recreation pressures on the shingle shore
		7230	Alkaline fens			
002256	Ballyprior Grassland	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(* important orchid sites)			<ul style="list-style-type: none"> • Habitat damage, clearance of scrub, surface rock, soil and vegetation disturbance • Improvements by harrowing, re seeding and fertilising • Afforestation • Grazing management • Encroachment by scrub and bracken
002274	Wicklow Reef	1170	Reefs			<ul style="list-style-type: none"> • Mechanical disturbance pots and fishing gear dragged across the surface
002299	River Boyne and River Blackwater	7230	Alkaline fens	1099	<i>Lampetra fluviatilis</i>	<ul style="list-style-type: none"> • Drainage, alteration of bankside • Water pollution • Dredging • Water quality due to agricultural runoff, domestic and industry
		91E0	*Alluvial forests with <i>Alnus gultinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>)	1106	<i>Salmo salar</i> (in freshwater only)	
				1355	<i>Lutra lutra</i>	
002331	Mounds Bog	7110	*Active raised bogs			<ul style="list-style-type: none"> • Hydrology, • Industrial cutting of high bog • Removal of peat small scale • Burning
		7120	Degraded raised bogs still capable of natural regeneration			
		7150	Depressions on peat substrates of the <i>Rhynchosporion</i>			
002340	Moneybeg	7110	*Active raised bogs			<ul style="list-style-type: none"> • Peat cutting, drainage, burning

Site Code	Site Name	Habitat Code	Habitat Name	Species Code	Species Name	Vulnerability/ issues	Management
	and Clareisland Bogs	7120	Degraded raised bogs still capable of natural regeneration			<ul style="list-style-type: none"> • Agricultural reclamation and afforestation • 	
		7150	Depressions on peat substrates of the <i>Rhynchosporion</i>				
002342	Mount Hevey Bog	7110	*Active raised bogs			<ul style="list-style-type: none"> • Peat cutting • Afforestation • Burning 	
		7120	Degraded raised bogs still capable of natural regeneration				
		7150	Depressions on peat substrates of the <i>Rhynchosporion</i>				
003000	Rockabill to Dalky Island			1351	<i>Phocoena phocoena</i>	<ul style="list-style-type: none"> • Disturbance, major industry, drilling etc 	

Table 4.1 Natura 2000 (Special Protection Areas) sites located within 15km of any cycle plan, conservation interests and vulnerability / threats.

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
004006	North Island	Bull <i>Branta bernicla hrota</i> (wintering) <i>Tadorna tadorna</i> (wintering) <i>Anas crecca</i> (wintering) <i>Anas acuta</i> (wintering) <i>Anas clypeata</i> (wintering) <i>Haematopys ostralegus</i> (wintering) <i>Pluvialis squatarola</i> (wintering) <i>Calidris canutus</i> (wintering) <i>Calidris alba</i> (wintering) <i>Calidris alpina</i> (wintering)	Wetlands	<ul style="list-style-type: none"> • Risk of pollution such as oil spillages • Bat digging causes disturbance • Walkers, dogs sailing disturbance probably responsible for the abandonment of the site by <i>Sterna albifrons</i>

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
		<i>Limosa limosa</i> (wintering) <i>Limosa lapponica</i> (wintering) <i>Numenius arquata</i> (wintering) <i>Tringa tetanus</i> (wintering) <i>Arenaria interpres</i> (wintering) <i>Chroicocephalus ridibundus</i> (wintering)		
004014	Rockabill	<i>Calidris maritime</i> <i>Sterna doughallii</i> <i>Sterna hirundo</i> <i>Sterna paradisaea</i>		<ul style="list-style-type: none"> • Risk of disturbance from casual visitors landing on the lighthouse island
004015	Rogerstown Estuary	<i>Anser anser</i> <i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Anas clypeata</i> <i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Pluvialis squatarola</i> <i>Calidris canutus</i> <i>Calidris alpina alpina</i> <i>Limosa limosa</i> <i>Tringa tetanus</i>	Wetlands	<ul style="list-style-type: none"> • Landfilling of estuary (intertidal flats and silt marsh) • Land fill as a source of pollution • Raw sewage from local town and agricultural pollution • Erosion • Illegal shooting
004016	Baldoyle Bay	<i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Charadrius hiaticula</i> <i>Pluvialis apricaia</i>	Wetlands	<ul style="list-style-type: none"> • Bait digging and controlled wildfowling • Walkers and dogs

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
		<i>Pluvialis squatarola</i> <i>Limosa lapponica</i>		
004024	South Dublin Bay and River Tolka Estuary	<i>Branta bernicla hrota</i> (wintering) <i>Haematopus ostralegus</i> (wintering) <i>Chardrius hiaticula</i> (wintering) <i>Calidris alba</i> (wintering) <i>Calidris alpine</i> (wintering) <i>Limosa lapponica</i> (wintering) <i>Tringa tetanus</i> (wintering) <i>Sterna dougallii</i> (passage) <i>Sterna hirundo</i> (breeding and passage) <i>Sterna paradisaea</i> (passage)	Wetlands	<ul style="list-style-type: none"> • Reclamation for industrial and infrastructural purposes • Risk of oil spillages from Dublin Port • Commercial bait digging causes disturbance • Walkers and dogs
004025	Malahide Estuary	<i>Podiceps cristatus</i> (wintering) <i>Branta bernicla hrota</i> (wintering) <i>Tadorna tadorna</i> (wintering) <i>Anas acuta</i> (wintering) <i>Bucephala clangula</i> (wintering) <i>Mergus serrator</i> (wintering) <i>Haematopus ostralegus</i> (wintering) <i>Pluvialis apricaria</i> (wintering) <i>Pluvialis squatarola</i> (wintering) <i>Calidris canutus</i> (wintering) <i>Calidris alpine</i> (wintering) <i>Limosa limosa</i> (wintering) <i>Limosa lapponica</i> (wintering)	Wetlands	<ul style="list-style-type: none"> • Recreational activities, water pollution and infilling • Popular for water sports and other amenity can cause disturbance • Pollution • Infilling for housing and walk-ways remains a threat

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
		<i>Tringa tetanus</i> (wintering)		
004040	Wicklow Mountains	<i>Falco columbarius</i> (breeding) <i>Falco peregrines</i> (breeding)		<ul style="list-style-type: none"> Some potential or disturbance from hill walking and climbing if not properly controlled
004063	Poulaphouca Reservoir	<i>Anser anser</i> (wintering) <i>Larus fuscus</i> (wintering)		<ul style="list-style-type: none"> Recreational use of reservoir for boating activities potentially increase of activities may result in impact
004065	Lough Sheelin	<i>Podiceps cristatus</i> (wintering) <i>Aythya farina</i> (wintering) <i>Aythya fuligula</i> (wintering) <i>Bucephala clangula</i> (wintering)	Wetlands	<ul style="list-style-type: none"> Water quality with a need to reduce phosphorus Recreation Wildfowling
004069	Lambay Island	<i>Fulmarus glacialis</i> (breeding) <i>Phalacrocorax carbo</i> (breeding) <i>Phalacrocorax aristotelis</i> (breeding) <i>Anser anser</i> (wintering) <i>Larus fuscus</i> (breeding) <i>Larus argentatus</i> (breeding & wintering) <i>Rissa tridactyla</i> (breeding) <i>Uria aalge</i> (breedings) <i>Alca torda</i> (breeding) <i>Fratercula arctica</i> (breeding)		<ul style="list-style-type: none"> Restricted access means minimal disturbance Rats Overfishing Risk of oil pollution from nearby shipping lane
004080	Boyne Estuary	<i>Tadorna tadorna</i> <i>Haematopus ostralegus</i> <i>Pluvialis apricaria</i> <i>Pluvialis squatarola</i> <i>Vanellus vanellus</i> <i>Calidris canutus</i>	Wetlands	<ul style="list-style-type: none"> Infilling Pollution from Drogheda town Planned port extension

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
		<i>Calidris alba</i> <i>Limosa limosa</i> <i>Tringa tetanus</i> <i>Arenaria interpres</i> <i>Sterna albifrons</i>		
004113	Howth Head Coast	<i>Rissa tridactyla</i> (breeding)		<ul style="list-style-type: none"> • Despite high numbers of visitors, there does not appear to be any significant disturbance to colonies (some of which are on inaccessible cliff faces) • Overfishing could put pressures on food supplies
004117	Irelands Eye	<i>Phalacrocorax carbo</i> (breeding) <i>Larus argentatus</i> (breeding) <i>Rissa tridactyla</i> (breeding) <i>Uria aalge</i> (breeding) <i>Alca torda</i> (breeding)		<ul style="list-style-type: none"> • Day trippers do not appear to be having any adverse impact on nesting seabirds (most of which are on relatively inaccessible cliffs). However further increases in the numbers of visitors could cause disturbance to some of the nesting birds • High numbers of rats could be detrimental •
004122	Skerries Islands	<i>Phalacrocorax carbo</i> (breeding & wintering) <i>Phalacrocorax aristotelis</i> (breeding) <i>Branta bernicla hrota</i> (wintering) <i>Calidris maritima</i> (wintering) <i>Arenaria interpres</i> (wintering) <i>Larus argentatus</i> (breeding & wintering)		<ul style="list-style-type: none"> • Visitor are regular in summer and disturbance may be caused to breeding birds
004127	Wicklow Head	<i>Rissa tridactyla</i>		<ul style="list-style-type: none"> • No significant treats, visitors could cause disturbance but most seabirds are on inaccessible cliff face, over fishing could put pressure on food supplies
004158	River Nanny Estuary and Shore	<i>Haematopus ostralegus</i> (wintering) <i>Charadrius hiaticula</i> (wintering)	wetlands	<ul style="list-style-type: none"> • Increased level of disturbance by beech users, walkers, dogs etc

Site Code	Site Name	Qualifying Species	Qualifying Habitats	Vulnerability/ threats
		<i>Pluvialis apricaria</i> (wintering) <i>Calidris canutus</i> (wintering) <i>Calidris alba</i> (wintering) <i>Larus argentatus</i> (wintering)		
004172	Dalkey Islands	<i>Sterna dougallii</i> (passage) <i>Sterna hirundo</i> (passage) <i>Sterna paradisaea</i> (passage)		<ul style="list-style-type: none"> • Terns vulnerable to severe weather, predation and disturbance
004186	The Murrough	<i>Gavia arctica</i> (wintering) <i>Anser anser</i> (winter) <i>Branta bernicla hrota</i> (wintering) <i>Anas Penelope</i> (wintering) <i>Anas Crecca</i> (wintering) <i>Chroicocephalus ridibundus</i> (wintering) <i>Larus argentatus</i> (wintering) <i>Sterna albifrons</i> (breeding)	Wetlands	<ul style="list-style-type: none"> • Proximity to Kilcoole and Wicklow towns with pressures from housing and increased disturbance • Risk of water pollution • High nutrient loading from farmland • Recreational pressures
004235	River Boyne and River Blackwater	<i>Alcedo atthis</i> (breeding)		<ul style="list-style-type: none"> • None

5.0 ASSESSMENT OF LIKELY EFFECTS – SCREENING METHODOLOGY

5.1 Consideration of Significance

In terms of significance, the NPWS Guidance quotes an EC definition “*any element of a plan or project that has the potential to affect the conservation objectives of a Natura 2000 site, including its structure and function, should be considered significant (EC, 2006)*”.

In order to assess the likely impacts and ascertain whether a significant impact on the integrity of the Natura sites is likely to occur as a result of the proposed plan, it is necessary to consider what constitutes the integrity of a site as referred to in Article 6 (3) of the Habitats Directive. The document *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* gives clear guidance in this regard and states:

“The integrity of the site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site’s conservation objectives.”

5.2 Elements of the Plan likely to affect Natura 200 sites

The GDA Cycle Network Plan has identified the existing cycle network in the GDA, its quality of service and gaps in the network. This information along with an assessment of cycle travel demand was used to devise a cycle network plan that allows for future schemes to be developed.

The propose plan outlines three networks of cycleway:

Network	Route Category	Description
Urban Cycle Network	Primary	Main cycle arteries that cross the urban area and carry most cycle traffic
	Secondary	Link between principal cycle route and local zones
	Feeder	Cycle route within local zones and/or connections from zones to the network level above
Inter Urban Cycle Network		Link the towns and city across rural areas and include the elements of the National Cycle Networks within the GDA
Green Route Network		Cycle routes developed predominately for tourists, recreational and leisure purposes but may also carry elements of utility cycle route network above. Many National Cycle Route will be of this type

The Urban Cycle Network is made up of primary, secondary and feeder routes and is largely on road routes that anticipate the requirement for control measures such as speed restriction, signage, traffic management and road markings. It is anticipated that there is no direct impact as a result of the provision/ upgrade of the urban cycle network. However, consideration is given to direct impact as a result of the plan including increased visitor pressures and disturbance to sensitive habitats and species.

The Inter Urban Cycle route requirements which link towns, city and other facilities is largely concerns the provision of new signage, speed restriction, traffic management and road markings. However in situations where existing road infrastructure exhibits constraints for cycling such as safety there may be requirements for the provision of new infrastructure including cycle tracks within the verge of the existing road or minor realignment. For example, there may occasionally be a requirement for the provision of cycle tracks within the verge of the existing roads and where dangerous bends are present, minor realignment works.

The Greenway routes make up a combination of existing and proposed routes that are largely off road providing amenity. Greenways generally are located in scenic areas, along coastal paths or riverine environments and due to the nature and location of these sites are most likely to come in contact with sites of conservation interest, often within or adjoining Natura 2000 Sites.

Many of the proposed greenways are made up of existing amenity areas but will require upgrade ranging from minor upgrade works to the provision of new pedestrian and cycle facilities. Other Greenways may be new routes and will provide amenity that did not exist prior to the cycleway. There is potential for greenway to have a direct impact on Natura 2000 sites though construction of pathways within or in proximity to the site or indirectly by providing a new or improved access to sites that are sometimes highly sensitive to disturbance and visitor pressures.

5.3 Consideration of Impacts on Natura 2000 sites

Each Natura 2000 Site has been examined in relation to the existing cycle networks and proposed plan and a description of the plan impact on this particular area has been assessed. It is considered that largely inter urban and primary / secondary routes will have a minimal impact however each route must be considered when examining the Natura 2000 sites as there may be requirement for minor works and the provision of new infrastructure along with the potential for increased visitor pressures as a result of the proposal. The following table identifies each Natura 2000 Site and provides a description of the plan and how it may / may not impact on this site. This table should be read in conjunction with Drawings DS1 – DS9 and Volume 1 of the Greater Dublin Area Cycle Network Plan.

6.0 SCREENING ASSESSMENT

Table 6.1 Special Areas of Conservation, Screening Assessment

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000006	Killyconny Bog	*Active raised bogs Degraded raised bogs still capable of natural regeneration	Closest route plan is Inter-urban route M8, over 1km to the north east of Killyconny Bog. Infrastructure is existing on low trafficked local road. No route directly links or is in proximity to the bog. There is no risk of impact to the qualifying interest of the site. None	None
000199	Baldoyle Bay	Mudflats and sandflats not covered by seawater at low tide <i>Salicornia</i> and other annual colonizing mud and sand Atlantic salt meadows (<i>Glaucopuciniellietalia maritimae</i>) Mediterranean salt meadows (<i>Juncetalia maritima</i>)	Primary/secondary route P1, Radial Route 1A and the Eastern Greenway are all in proximity to or within the SAC. While exiting infrastructure is in place for much of the cycle plan there is potential for additional works along the route including the provision of the Greenway. The provision of the Eastern Greenway has the potential to result in increased disturbance to the area, <i>Salicornia</i> habitats are identified as being under pressure from walking, horse-riding and not motorised vehicles. Atlantic salt meadows and Mediterranean salt meadow habitats are identified as under pressure from walking, horse riding and non motorised vehicles along with the provision of paths, tracks and cycling tracks	Yes Screened in for AA
000202	Howth Head	Vegetated sea cliffs off the Atlantic and Baltic coasts European dry heaths	Provision of a greenway and on road facilities Route 1A. The route severs the SAC on the southern side of Howth Head only. As the route is within the SAC it cannot be screened out for Appropriate assessment.	Yes Screened in for AA
000204	Lambay Island	Reefs Grey seal <i>Halichoerus grypus</i> Harbour seal <i>Phoca vitulina</i>	Lambay Island is over 4km off the east coast of Ireland, there is no direct or indirect impact on conservation interests	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000205	Malahide Estuary	<p>Mudflats and sandflats not covered by seawater at low tide</p> <p><i>Salicornia</i> and other annuals colonising mud and sand</p> <p>Spartina sward (<i>Spartinion marintiae</i>)</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p> <p>Mediterranean salt meadows (<i>Junctelia maritime</i>)</p> <p>Shifting dunes along shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p>	Proposed Greenways P1/FG1, FG2, FG4 directly impacting on the SAC, potential for direct loss of habitats and increased disturbance / visitor pressure on sensitive coastal habitats	Yes Screened in for AA

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000206	North Dublin Bay	<p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Annual vegetation of drift lines</p> <p><i>Salicornia</i> and other annuals colonizing mud and sand</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritima</i>)</p> <p>Embryonic shifting dunes</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>*Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>Humid dune slacks</p> <p><i>Petalophyllum ralfsii</i></p>	<p>Route 1A adjoining or directly impacting the SAC. East coast trail adjoining Dublin Bay, Santry River Greenway within SAC. While much of the infrastructure is in place, the Santry River Greenway is at plan stage only. The SAC is sensitive to disturbance and increased visitor pressure as well as direct impact from loss of habitat.</p>	<p>Yes Screened in for AA</p>

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000208	Rogerstown Estuary	<p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritima</i>)</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>*Fixed coastal dunes with herbaceous vegetation (grey dunes)</p>	Greenway FG1 adjoins and crosses the SAC. Route RU2 joins the SAC to the north. Habitats are potentially directly impacted by works within the site along with the potential to increased visitor pressures on sites in particular Fixed and Shifting dunes.	Yes Screened in for AA
000210	South Dublin Bay	Mudflats and sandflats not covered by seawater at low tide	Route 13E and Greenway for the East Coast Trail adjoins the length of the south Dublin bay. The site could be directly impacted by the greenway if construction was to occur on mudflats or sand flats and is therefore screened in. The habitat type is not sensitive to visitor pressure and there is no risk to the SAC indirectly.	Yes Screened in for AA
000391	Ballynafagh Bog		CP1 interurban route is located approximately 0.5km from the Bog Site, there is no risk to the site though upgrade to the existing route on the bog. There is no risk to the bog from increased visitor pressure as the route does not provide a link to the bog. The bog is generally not sensitive to visitor pressure.	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000396	Pollardstown Fen	*Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> *Petrifying springs with tufa formation (<i>Cratoneurion</i>) Alkaline fens <i>Vertigo geyeri</i> <i>Vertigo angustior</i> <i>Vertigo moulinsiana</i>	Greenway K12 is proposed through the centre of fen. Direct impact potential on priority habitats and species. Potential for impact on hydrology and direct loss of habitat	Yes Screened in for AA
000397	Red Bog, Kildare	Transition mires and quaking bogs	No proposal in proximity to the bog, interurban route over 2.5km from the Bog. No potential for impact on Transition mire and quaking bogs as a result.	None
000713	Ballyman Glen	*Petrifying springs with tufa formation (<i>Cratoneurion</i>) Alkaline fens	Intersected by W2 inter-urban route, existing infrastructure is in place however new infrastructure has potential for impact on SAC	Yes Screened in for AA
000714	Bray Head	Vegetated sea cliffs of the Atlantic and Baltic coasts European dry heaths	W4 interurban with good cycling facilities already present to the west of SAC. W11 Greenway (East Coast Trail) potentially has a direct impact on the qualifying interests. Yes	Yes Screened in for AA
000716	Carriggower Bog	Transition mires and quaking bogs	W5 Interurban route over 1.5km from site, no improvement proposed to route. W3 interurban route over 2km from site, no requirement for upgrade to route, no impacts predicted.	None
000717	Deputy's Pass Nature Reserve	Old sessile oak woods with Ilex and Blechnum in the British Isles	W12 Interurban route, over 1.5km to the south, no works required, no predicted impact.	None
000719	Glen of the Downs	Old sessile oak woods with Ilex and Blechnum in the British Isles	G1 Primary / Secondary Route directly to the south of Glen, no works required no direct impact, no significant indirect impact.	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
			Habitat types are not threatened by visitor pressures.	
000725	Knocksink Wood	*Petrifying springs with tufa formation (<i>Cratoneurion</i>) *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>)	W1 interurban adjoins SAC, W2 located to the south of SAC at Enniskerry, no proposed work in this location, no potential impact predicted	None
000729	Buckroneys-Brittis Dunes and Fen	Annual vegetation of drift lines Perennial vegetation of stony banks Embryonic shifting dunes Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) *Fixed coastal dunes with herbaceous vegetation (grey dunes) *Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) Dunes with <i>Salix repens</i> spp. <i>Argentea</i> (<i>Salix arenariae</i>) Humid dune slacks Alkaline fens	W11 Interurban route (East Coast Way) using existing road infrastructure with no works required, no direct impact predicted. However the completion of an east coast way may increase visitor pressure to sensitive habitat types in particular dune systems resulting in potential impact on the SAC.	Yes Screened in for AA
000733	Vale of Clara (Rathdrum Wood)	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	W13 Interurban route intersects SAC, upgrading of paths may be deemed necessary, potential impacts on the SAC cannot be ruled out.	Yes Screened in for AA

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
000770	Blackstairs Mountains	Northern Atlantic wet heath with <i>Erica tetralix</i> European dry heaths	18km from nearest component of the plan, 14km from plan border. Upland habitat, source-sink links not present.	None
000781	Slaney River Valley	Estuaries Mudflats and sandflats not covered by seawater at low tide Water courses of plain to montane levels with <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation Old Sessile oak woods with Ilex and Blechnum in the British Isles *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>) Freshwater Pearl Mussel <i>Margaritifera mrgaritifera</i> Sea Lamprey <i>Petromyzon marinus</i> Brook Lamprey <i>Lampetra planeri</i> River Lamprey <i>Lampetra fluviatilis</i> Twaite Shad <i>Alosa fallax</i> Atlantic salmon <i>Salmo salar</i> (only in fresh water) Otter <i>Lutra lutra</i>	Interurban routes W17, W15, W14 and Greenway W16 impact on the Slaney Upper Reaches. Potential for direct impact at crossing points at any of these locations to protected species and habitats	Yes Screened In for AA

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
		Harbour Seal <i>Phoca vitulina</i>		
000925	The Long Derres, Edenderry	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites)	K10 Greenway 1.5km from SAC, habitats unlikely to result in increased visitor pressures, no direct pathway receptors at the site	None
001209	Glenasmole Valley	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (*important orchid sites) <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) *Petrifying springs with tufa formation (<i>Cratoneurion</i>)	Dodder Greenway within the valley and increases access to the site, Potential direct impacts on habitats present	Yes Screened in for AA
001387	Ballynafagh Lake	Alkaline fens <i>Vertigo moulinsiana</i> <i>Euphydrias</i> (<i>Eurodryas</i> , <i>Hypodryas</i>) <i>aurinia</i>	Greenway K10 links to south of SAC, given the habitat and species that make up qualifying interests, increased visitor pressures is unlikely to have a negative impact on the site. Disturbance though visitors pressure is not identified as a threat or vulnerability to the site	None
001398	Rye Water Valley / Carton	*Petrifying springs with tufa formation (<i>Cratoneurion</i>) <i>Vertigo angustior</i> <i>Vertigo moulinsiana</i>	Greenway K1 crosses though SAC, L1 and C7 primary / secondary feeder networks within SAC. Assessment needed at project level to determine impacts.	Yes Screened in for AA

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
001459	Clogher Head	Vegetated sea cliffs of the Atlantic and Baltic coasts European dry heaths	East Coast Greenway 500m from SAC, no predicted impact	None
001742	Kilpatrick Sandhills	Annual vegetation of drift lines Embryonic shifting dunes Shifting dunes along the shorelines with <i>ammophila arenaria</i> (white dunes) *Fixed coastal dunes with herbaceous vegetation (grey dunes) Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)	Interurban route (spur of W11, on road section of the East Coast Trail) links to site. Increase in visitor pressure potential from East coast Trail	Yes Screened in for AA
001757	Holdenstown Bog	Transition mires and quaking bogs	Closest interurban route W15 over 2km, no impact predicted	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
001766	Magherabeg Dunes	<p>Annual vegetation of drift lines</p> <p>Embryonic shifting dunes</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>*Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>*Atlantic decalcified fixed dunes (<i>Calluno- Ulicetera</i>)</p> <p>*Petrifying springs with tufa formation (<i>Cratoneurion</i>)</p>	W11 On road section of the East coast Trail, 100 m from the SAC, site is sensitive to disturbance and visitor pressure.	Yes Screened in for AA
001810	White Lough, Ben Lough and Lough Doo	<p>Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> species.</p> <p>White-clawed crayfish <i>Austropotamobius pallipes</i></p>	Interurban route M9 over 5km from site, no predicted impact on site due to distance	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
001957	Boyne Coast and Estuary	<p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Salicornia and other annuals colonizing mud and sand</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritima</i>)</p> <p>Embryonic shifting dunes</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>*Fixed coastal dunes with herbaceous vegetation (grey dunes)</p>	M1 East Coast Greenway potentially directly impacting on the SAC, potential for increased visitor pressure	Yes Screened in for AA
002120	Lough Bane and Lough Glass	<p>Hard oligo-mesotrophic waters with benthic vegetation of Chara species</p> <p>White-clawed crayfish <i>Austropotamobius pallipes</i></p>	<p>Closest interurban route is over 5km (M1)</p> <p>No proposal for works in proximity to the SAC</p>	None
002121	Lough Lene	<p>Hard oligo-mesotrophic waters with benthic vegetation of Chara species.</p> <p><i>Austropotamobius pallipes</i></p>	Over 9km from nearest interurban route (M9) no potential for impact on this habitat type	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
002122	Wicklow Mountains	<p>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littoreletea uniflorae</i> and/or of <i>Isoeto-Nanojuncetea</i></p> <p>Natural dystrophic lakes and ponds</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>European dry heaths</p> <p>Alpine and Boreal heaths</p> <p>*Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)</p> <p>Blanket bogs (*if active only)</p> <p>Siliceous scree of the montane to snow level (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)</p> <p>Cacareous rock slopes with chasmophytic vegetation</p> <p>Siliceous rocky slopes with chasmophytic vegetation</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Otter <i>Lutra lutra</i></p>	<p>No greenways directly impact on route,</p> <p>Interurban routes include W2, W3, W6, W7, W10. Routes are largely existing and currently subject to some visitor pressure. Cyclists using this route are likely to largely stay on road with minimal disturbance to habitats and species. Qualifying interests of the site are not particularly sensitive to disturbance from visitors</p>	None
002141	Mountmellick	<p>Desmoulin's whorl snail <i>Vertigo moulinsiana</i></p>	<p>Closest greenway over 12km, Interurban K15 is over 6km from SAC. Distance determined no impact on site or hydrology of site</p>	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
002162	River Barrow and River Nore	<p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p><i>Salicornia</i> and other annuals colonizing mud and sand</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritima</i>)</p> <p>Water courses of plain to montane levels with <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</p> <p>European dry heaths</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</p> <p>*Petrifying springs with tufa formation (<i>Cratoneurion</i>)</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles1990</p> <p>*Alluvial forest with <i>Alnus Glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p>Desmoulin's whorl snail <i>Vertigo moulinsiana</i></p> <p>Freshwater pearl mussel</p>	<p>Directly impacted on SAC with greenways (K11) Barrow Canal Greenway K15 K20 interurban intersect the SAC. Potential impact on riparian habitat, water quality and aquatic environment. Hydrogeology potentially impacted, increased visitor pressure.</p>	<p>Yes</p> <p>Screened in for AA</p>

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
		<p><i>Margaritifera margaritifera</i> While-clawed crayfish <i>Austropotamobius pallipes</i> Sea lamprey <i>Petromyzon marinus</i> Brook lamprey <i>Lampetra planeri</i> River lamprey <i>Lampetra fluviatilis</i> Twaite shad <i>Alosa fallax</i> Atlantic salmon (<i>Salmo salar</i>) (only in freshwater) Otter <i>Lutra lutra</i> Killarney fern <i>Trichomanes speciosum</i> Nore freshwater pearl mussel <i>Margaritifera durrovensis</i></p>		
002193	Irelands Eye	<p>Perennial vegetation of stony banks Vegetated sea cliffs of the Atlantic and Baltic coasts</p>	Off shore SAC, no impact	None

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
002249	The Murrough Wetlands	Annual vegetation of drift lines Perennial vegetation of stony banks Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) Mediterranean salt meadows (<i>Juncetalia maritima</i>) *Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Cladion davalliana</i> Alkaline fens	East Coast Greenway and Greenways that link W4 Interurban to the East Coast Greenway potentially directly impacting on the SAC Potential for direct impact on habitats, increased disturbance, potential for hydrological impacts.	Yes Screened in for AA
002256	Ballyprior Grassland	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(* important orchid sites)	3km from interurban, 5km from greenway No direct impact, Site vulnerabilities not at risk from cycleway	None
002274	Wicklow Reef	Reefs	Off shore no impact, Site vulnerability relate to off shore activities, fishing etc	None
002299	River Boyne and River Blackwater	Alkaline fens *Alluvial forests with <i>Alnus gultinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>alnion incanae</i> , <i>Salicion albae</i>) River lamprey <i>Lampetra fluviatilis</i> Atlantic salmon <i>Salmo salar</i> (in freshwater only) Otter <i>Lutra lutra</i>	Proposed Boyne greenway along the banks of the Boyne River with potential to have impact directly on protected habitats, and indirectly though impact on water quality on some species	Yes Screened in for AA

Site code	Site Name	Qualifying interest	Description of plan impacting on the SAC	Potential Impact
002331	Mounds Bog	*Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the <i>Rhynchosporion</i>	Greenway K12 proposed 1.5km from SAC, no interurban or primary/ secondary impacting on Bog. No potential impact on protected habitats.	None
002340	Moneybeg and Clareisland Bogs	*Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the <i>Rhynchosporion</i>	Interurban M9 over 9km from SAC. No potential impact on SAC.	None
002342	Mount Hevey Bog	*Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the <i>Rhynchosporion</i>	Adjoining the Dublin – Galway cycleway at the Royal canal, potential impact on hydrology.	Yes Screened in for AA
003000	Rockabill to Dalky Island	Harbour porpoise <i>Phocoena phocoena</i>	Off-shore, no impact	None

Table 6.2 Special Protections Areas, Screening Assessment

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
004006	North Bull Island	<i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Anas crecca</i> <i>Anas acuta</i> <i>Anas clypeata</i>	Adjoining Eastern Greenway along Clontarf with potential disturbance on bird life	Yes Screened in for AA

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>Haematopys ostralegus</i> <i>Pluvialis squatarola</i> <i>Calidris canutus</i> <i>Calidris alba</i> <i>Calidris alpine</i> <i>Limosa limosa</i> <i>Limosa lapponica</i> <i>Numenius arquata</i> <i>Tringa tetanus</i> <i>Arenaria interpres</i> <i>Chroicocephalus ridibundus</i> Wetlands		
004014	Rockabill	<i>Calidris maritime</i> <i>Sterna dougallii</i> <i>Sterna hirundo</i> <i>Sterna paradisaea</i>	Off-shore, no potential impact	None
004015	Rogerstown Estuary	<i>Anser anser</i> <i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Anas clypeata</i> <i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Pluvialis squatarola</i> <i>Calidris canutus</i> <i>Calidris alpine alpine</i>	Eastern Greenway adjoining and within SPA, potential for loss of habitat and disturbance to birds	Yes Screened in for AA

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>Limosa limosa</i> <i>Tringa tetanus</i> Wetlands		
004016	Baldoyle Bay	<i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Charadrius hiaticula</i> <i>Pluvialis apricaia</i> <i>Pluvialis squatarola</i> <i>Limosa lapponica</i> Wetlands	Eastern Greenway adjoining and within SPA, potential for loss of habitat and disturbance to birds	Yes Screened in for AA
004024	South Dublin Bay and River Tolka Estuary	<i>Branta bernicla hrota</i> <i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Calidris alba</i> <i>Calidris alpina</i> <i>Limosa lapponica</i> <i>Tringa tetanus</i> <i>Sterna dougallii</i> <i>Sterna hirundo</i> <i>Sterna paradisaea</i> Wetlands	Eastern Greenway adjoining and within SPA, potential for loss of habitat and disturbance to birds	Yes Screened in for AA
004025	Malahide Estuary	<i>Podiceps cristatus</i> <i>Branta bernicla hrota</i> <i>Tadorna tadorna</i> <i>Anas acuta</i>	Eastern Greenway adjoining and within SPA, potential for loss of habitat and disturbance to birds	Yes Screened in for AA

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>Bucephala clangula</i> <i>Mergus serrator</i> <i>Haematopus ostralegus</i> <i>Pluvialis apricaria</i> <i>Pluvialis squatarola</i> <i>Calidris canutus</i> <i>Calidris alpine</i> <i>Limosa limosa</i> <i>Limosa lapponica</i> <i>Tringa tetanus</i> Wetlands		
004040	Wicklow Mountains	<i>Falco columbarius</i> <i>Falco peregrines</i>	No greenways proposed in proximity to SPA, several interurban routes are included within the plan; however there should be minimal increase in visitor numbers within the SAC 002122. The cycle route is considered difficult, thus limited visitor numbers. Qualifying interests with large territories are unlikely to experience disturbance	Yes, Screened in for AA
004063	Poulaphouca Reservoir	<i>Anser anser</i> <i>Larus fuscus</i>	No greenways proposed in proximity to SPA, interurban W10 within the SPA. need for further consideration in terms of disturbance to birds.	Yes, Screened in for AA
004065	Lough Sheelin	<i>Podiceps cristatus</i> <i>Aythya farina</i> <i>Aythya fuligula</i> <i>Bucephala clangula</i> Wetlands	No greenways or interurban or secondary routes in proximity to SPA	None
004069	Lambay Island	<i>Fulmarus glacialis</i>	Off-shore, no impact	None

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>Phalacrocorax carbo</i> <i>Phalacrocorax aristotelis</i> <i>Anser anser</i> <i>Larus fuscus</i> <i>Larus argentatus</i> <i>Rissa tridactyla</i> <i>Uria aalge</i> <i>Alca torda</i> <i>Fratercula arctica</i>		
004080	Boyne Estuary	<i>Tadorna tadorna</i> <i>Haematopus ostralegus</i> <i>Pluvialis apricaria</i> <i>Pluvialis squatarola</i> <i>Vanellus vanellus</i> <i>Calidris canutus</i> <i>Calidris alba</i> <i>Limosa limosa</i> <i>Tringa tetanus</i> <i>arenaria interpres</i> <i>Sterna albifrons</i> Wetlands	Boyne Greenway adjoins and potentially within SPA, potential or direct impact to habitat and increased disturbance from visitors to birds	Yes Screened in for AA
004113	Howth Head Coast	<i>Rissa tridactyla</i>	Eastern Greenway avoids SPA, there is no significant impact as a result of increased cyclist on bird habitats	None
004117	Irelands Eye	<i>Phalacrocorax carbo</i> <i>Larus argentatus</i> <i>Rissa tridactyla</i>	Off-shore, no impact	None

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>Uria aalge</i> <i>Alca torda</i>		
004122	Skerries Islands	<i>Phalacrocorax carbo</i> <i>Phalacrocorax aristotelis</i> <i>Branta bernicla hrota</i> <i>Calidris maritima</i> <i>Arenaria interpres</i> <i>Larus argentatus</i>	Off shore, greenway may increase visitors to Skerries. However the number of visitor increasing on the islands as a result of the proposal is not considered significant.	None
004127	Wicklow Head	<i>Rissa tridactyla</i>	No greenways in proximity to the SPA, no increased visitor number assumed	None
004158	River Nanny Estuary and Shore	<i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Pluvialis apricaria</i> <i>Calidris canutus</i> <i>Calidris alba</i> <i>Larus argentatus</i> Wetlands	Eastern Greenway adjoining and within SPA, risk of disturbance and destruction of wetlands	Yes Screened in for AA
004172	Dalkey Islands	<i>Sterna dougallii</i> <i>Sterna hirundo</i> <i>Sterna paradisaea</i>	Off-shore, no impact	None
004186	The Murrough	<i>Gavia arctica</i> <i>Anser anser</i> <i>Branta bernicla hrota</i> <i>Anas Penelope</i> <i>Anas Crecca</i> <i>Chroicocephalus</i>	Eastern Greenway directly adjoins and within the SPA, impact on habitat and disturbance to species	Yes Screened in for AA

Site Code	Site Name	Qualifying Interest	Description of Plan	Potential Impact
		<i>ridibundus</i> <i>Larus argentatus</i> <i>Sterna albifrons</i> Wetlands		
004235	River Boyne and River Blackwater	<i>Alcedo atthis</i>	Boyne Greenway directly and adjoining the SPA, potential impact on habitat and species	Yes Screened in for AA

7.0 SUMMARY OF SCREENING ASSESSMENT AND CONCLUSION

The above assessment examined each Natura 2000 site within the Greater Dublin Area and within a 15km buffer zone of the study area. Each Natura 2000 site considered the nature of the proposed plan, the sensitivities of the Natura 2000 site and the general vulnerabilities and management considerations of each habitat and species type for which the Natura 2000 Site was designated. The screening allow for a precautionary principle to be used and if any doubt as to the potential for impacts on the Natura 2000 site existing it was screened in for further consideration in the next stage of assessment which will be outlined in a Natura Impact Report.

The following tables identified all Natura 2000 Sites that have been screened in and require further assessment (Stage 2 Appropriate Assessment) in the form of a Natura Impact Report.

Table 7.1 Special Areas of Conservation Screened in for Stage 2 Appropriate Assessments

Site code	Site Name	Stage 2 Appropriate Assessment
000199	Baldoyle Bay	Screened in
000202	Howth Head	Screened in
000205	Malahide Estuary	Screened in
000206	North Dublin Bay	Screened in
000208	Rogerstown Estuary	Screened in
000210	South Dublin Bay	Screened in
000396	Pollardstown Fen	Screened in
000713	Ballyman Glen	Screened in
000714	Bray Head	Screened in
000729	Buckroney-Brittias Dunes and Fen	Screened in
000733	Vale of Clara (Rathdrum Wood)	Screened in
000781	Slaney River Valley	Screened in
001209	Glenasmole Valley	Screened in
001398	Rye Water Valley / Carton	Screened in
001742	Kilpatrick Sandhills	Screened in
001766	Magherabeg Dunes	Screened in
001957	Boyne Coast and Estuary	Screened in
002162	River Barrow and River Nore	Screened in
002249	The Murrough Wetlands	Screened in
002299	River Boyne and River Blackwater	Screened in
002342	Mount Hevey Bog	Screened in

Table 7.2 Special Protection Area Screened in for Stage 2 Appropriate Assessments

Site code	Site Name	Stage 2 Appropriate Assessment
004006	North Bull Island	Screened in
004015	Rogerstown Estuary	Screened in
004016	Baldoyle Bay	Screened in
004024	South Dublin Bay and River Tolka Estuary	Screened in
004025	Malahide Estuary	Screened in
004040	Wicklow Mountains	Screened in
004063	Poulaphouca Reservoir	Screened in
004080	Boyne Estuary	Screened in
004158	River Nanny Estuary and Shore	Screened in
004186	The Murrough	Screened in
004235	River Boyne and River Blackwater	Screened in

Appendix 1

Identified Main Pressures and Threats of Protected Habitats and Species

Code	Species/Habitat	Main Pressure	Main Threat
1013	<i>Vertigo geyeri</i>	<p>100 Cultivation: change in agricultural practice e.g. from low intensity grazing to arable/hay/silage</p> <p>110 Use of pesticides: <i>Vertigo geyeri</i> is susceptible to agricultural and other pesticides</p> <p>120 Fertilisation: <i>Vertigo geyeri</i> is susceptible to nutrient enrichment from artificial and natural fertilisers and requires low nutrient habitat</p> <p>140 Grazing: changes in grazing animal, particularly from sheep to cattle grazing, increases in grazing levels and changes to current grazing practice (lengths of grazing periods)</p> <p>141 Abandonment of pastoral systems</p> <p>149 Undergrazing: from loss of habitat due to excessive shade and scrub encroachment</p> <p>161 Forestry planting: afforestation of <i>V. geyeri</i> habitat results in its total destruction</p> <p>171 Stock feeding: supplementary feeding of stock in snail habitat</p> <p>310 Peat extraction: whether hand or machine cut, cutting of <i>V. geyeri</i> habitat or nearby habitat resulting in hydrological or other knock-on changes can result in its total destruction</p> <p>501 Paths, tracks: trampling erosion and fragmentation of habitat</p> <p>622 Walking, horseriding and non-motorised vehicles: habitat is lost through erosion and fragmentation</p> <p>623 Motorised vehicles: habitat is lost through erosion and fragmentation, particularly where cars are driven on to sensitive fen habitats</p> <p>800 Landfill, land reclamation and drying out</p> <p>810 Drainage: changes in hydrology particularly from ditch deepening or abstraction and digging out of springs</p> <p>850 Modification of hydrographic functioning: <i>V. geyeri</i> is sensitive to changes that affect as little as</p>	<p>All of the above, plus</p> <p>400 Urbanised areas, human habitation: if encroachment into <i>V. geyeri</i> habitat is allowed</p> <p>500 Communications networks: if encroachment into <i>V. Geyeri</i> habitat is allowed, or interferes with the hydrogeology of the habitat for the species.</p> <p>840 Flooding: from hydrogeological changes resulting in higher than acceptable water levels in the snail habitat</p> <p>990 Other processes: climate change, in particular leading to changes of weather pattern causing more extensive flooding and/or drought periods</p>

Code	Species/Habitat	Main Pressure	Main Threat
		10mm differences to the water table at its habitat.	
1014	<i>Vertigo angustior</i>	<p>100 Cultivation: change in agricultural practice e.g. dunes or wetlands from grazing to arable/hay/silage</p> <p>110 Use of pesticides: <i>Vertigo angustior</i> is susceptible to agricultural and other pesticides</p> <p>120 Fertilisation: <i>Vertigo angustior</i> is susceptible to nutrient enrichment from artificial and natural fertilisers and requires low nutrient habitat</p> <p>140 Grazing: changes in grazing animal in dune sites to sheep grazing, increases in grazing levels and changes to current grazing practice in marsh sites</p> <p>141 Abandonment of pastoral systems</p> <p>149 Undergrazing: from loss of habitat due to excessive shade and scrub encroachment</p> <p>171 Stock feeding: supplementary feeding of stock in snail habitat</p> <p>190 Agriculture and forestry activities not referred to: introduction of exotic sea buckthorn and other species for the purposes of protection from wind and for other purposes</p> <p>300 Sand and gravel extraction: loss of habitat in esker / wetland interface habitats</p> <p>501 Paths, tracks: trampling erosion and fragmentation of habitat</p> <p>601 Golf courses: Loss of habitat from golf courses without very extensive areas of rough</p> <p>608 Camping and caravans: continuing expansions of Caravan Parks or other intensification</p> <p>622 Walking, horseriding and non-motorised vehicles: habitat is lost through erosion and fragmentation</p> <p>623 Motorised vehicles: habitat is lost through erosion and fragmentation, particularly where cars are driven on to sensitive dune habitats</p> <p>810 Drainage: changes in hydrology particularly from ditch deepening or abstraction</p> <p>900 Erosion: coastal erosion both natural and through trampling damage</p>	<p>All of the above, plus</p> <p>400 Urbanised areas, human habitation: if encroachment into <i>V. angustior</i> habitat is allowed</p> <p>500 Communications networks: if encroachment into <i>V. angustior</i> habitat is allowed, or interferes with the hydrogeology of the marsh habitat for the species.</p> <p>871 Sea defence or coastal protection works: through modification of natural and dynamic coastal habitats</p> <p>990 Other processes: climate change, in particular leading to higher sea levels and subsequent erosion of habitat</p>

Code	Species/Habitat	Main Pressure	Main Threat
1016	<i>Vertigo moulinsiana</i>	<p>100 Cultivation: change in agricultural practice e.g. from low intensity grazing to arable/hay/silage</p> <p>110 Use of pesticides: <i>Vertigo moulinsiana</i> is susceptible to agricultural and other pesticides</p> <p>120 Fertilisation: <i>Vertigo moulinsiana</i> is susceptible to nutrient enrichment from artificial and natural fertilisers and requires low nutrient habitat</p> <p>140 Grazing: increases in grazing levels and changes to current grazing practice (lengths of grazing periods)</p> <p>149 Undergrazing: from loss of habitat due to excessive shade and scrub encroachment</p> <p>161 Forestry planting: afforestation of <i>V. moulinsiana</i> habitat results in its total destruction</p> <p>171 Stock feeding: supplementary feeding of stock in snail habitat</p> <p>180 Burning: Burning in large fen habitats results in loss of available habitat</p> <p>310 Peat extraction: whether hand or machine cut, cutting of <i>V. moulinsiana</i> habitat or nearby habitat resulting in hydrological or other knock-on changes can result in its total destruction</p> <p>500 Communications networks: where encroachment into <i>V. moulinsiana</i> habitat is allowed, or interferes with the hydrogeology of the habitat for the species.</p> <p>501 Paths, tracks: trampling erosion and fragmentation of habitat, replacing bankside habitat with hard tracks</p> <p>622 Walking, horseriding and non-motorised vehicles: habitat is lost through erosion</p> <p>701 Water pollution: <i>Vertigo moulinsiana</i> is sensitive to eutrophication and consequent vegetation changes to its riparian and fen habitats</p> <p>800 Landfill, land reclamation and drying out</p> <p>810 Drainage: changes in hydrology particularly from ditch deepening or abstraction and digging out of springs</p> <p>852 Modifying structures of inland water course: many sites have</p>	<p>The most serious threats to <i>Vertigo moulinsiana</i> include all of the above pressures, which are likely to remain and/or intensify in the future, and also:</p> <p>400 Urbanised areas, human habitation: if encroachment into <i>V. moulinsiana</i> habitat is allowed</p> <p>840 Flooding: from hydrogeological changes resulting in higher than acceptable water levels in the snail habitat</p> <p>990 Other processes: climate change, in particular leading to changes of weather pattern causing more extensive flooding and/or drought periods</p>

Code	Species/Habitat	Main Pressure	Main Threat
		been lost through increasingly intensive management of canal and river systems	
1029	<i>Margaritifera margaritifera</i>	101 Modification of cultivation practices 103 Agricultural improvement (for the same reasons) 110 Use of pesticides 120 Fertilisation 142 Overgrazing by sheep 143 Overgrazing by cattle 148 Overgrazing, general 150 Restructuring agricultural land holding 160 General forestry management (all aspects of forestry management) 171 Stock feeding 220 Leisure fishing 240 Taking / removal of fauna 300 Sand and gravel extraction 301 Quarries 310 Peat extraction 330 Mines 400 Urbanised areas, human habitation 410 Industrial and commercial areas 420 Discharges 421 Disposal of household waste 422 Disposal of industrial waste 423 Disposal of inert materials 500 Communications networks 501 Paths, track, cycling tracks 502 Routes, autoroutes 507 Bridge, viaduct 510 Energy transport 530 Improved access to site 600 Sport and leisure structures 700 Pollution 800 Landfill, land reclamation and drying out, general 810 Drainage 830 Canalisation 840 Flooding 850 Modification of hydrographic functioning 853 Management of water levels 860 Dumping, depositing of dredged deposits 900 Erosion 960 Interspecific faunal relations 964 Genetic pollution	101 Modification of cultivation practices 103 Agricultural improvement (for the same reasons) 110 Use of pesticides 120 Fertilisation 142 Overgrazing by sheep 143 Overgrazing by cattle 148 Overgrazing, general 150 Restructuring agricultural land holding 160 General forestry management (all aspects of forestry management) 171 Stock feeding 220 Leisure fishing 240 Taking / removal of fauna 300 Sand and gravel extraction 301 Quarries 310 Peat extraction 330 Mines 400 Urbanised areas, human habitation 410 Industrial and commercial areas 420 Discharges 421 Disposal of household waste 422 Disposal of industrial waste 423 Disposal of inert materials 500 Communications networks 501 Paths, track, cycling tracks 502 Routes, autoroutes 507 Bridge, viaduct 510 Energy transport 530 Improved access to site 600 Sport and leisure structures 700 Pollution 800 Landfill, land reclamation and drying out, general 810 Drainage 830 Canalisation 840 Flooding 850 Modification of hydrographic functioning 853 Management of water levels 860 Dumping, depositing of dredged deposits 900 Erosion 960 Interspecific faunal relations 964 Genetic pollution 890 Other human induced changes in hydraulic (and other) conditions – Climate change

Code	Species/Habitat	Main Pressure	Main Threat
			966 Antagonism arising from introduction of species
1065	<i>Euphydrys aurinia</i>	141 abandonment of pastoral systems 502 roads, motorways 400 Urbanised areas	141 abandonment of pastoral systems 502 roads, motorways 400 Urbanised areas
1092	<i>Austropotamobius pallipes</i>	140 Grazing – cattle trampling 220 Leisure fishing 310 Peat extraction 330 Mines 420 Discharges 500 Communication networks 701 Water pollution 810 Drainage 820 Removal of sediments (mud) 830 Canalisation 952 Eutrophication 963 Introduction of disease	140 Grazing 220 Leisure fishing 310 Peat extraction 420 Discharges 502 Routes, autoroutes 701 Water pollution 952 Eutrophication 954 Invasion by a species 963 Introduction of disease
1099 1096	<i>Lampetra fluviatilis</i>	220 – Leisure fishing 290 – Use as bait 330 – Mines (leachate) 701 – Water pollution (eutrophication) 810 – Drainage 811 – management of aquatic vegetation 820 – Removal of sediments 850 – specifically weirs 853 – management of water levels	220 – Leisure fishing 290 – Use as bait 701 – Water pollution (eutrophication) 810 – Drainage 811 – management of aquatic vegetation 820 – Removal of sediments 850 – specifically weirs 853 – management of water levels
1095	<i>Petromyzon marinus</i>	220 – Leisure fishing 290 – Use as bait 330 – Mines (leachate) 701 – Water pollution (eutrophication) 810 – Drainage 811 – management of aquatic vegetation 820 – Removal of sediments 850 – specifically weirs 853 – management of water levels	220 – Leisure fishing 290 – Use as bait 701 – Water pollution (eutrophication) 810 – Drainage 811 – management of aquatic vegetation 820 – Removal of sediments 850 – specifically weirs 853 – management of water levels
1102	<i>Allosa alosa</i>	212 – Professional fishing – trawling (bi-catch) 213 – drift net fishing 220 – Leisure fishing 701 – Water pollution (eutrophication) 850 – Modification of hydrographic functioning (specifically weirs) 964 – genetic pollution	212 – Professional fishing – trawling (bi-catch) 220 – Leisure fishing 701 – Water pollution (eutrophication) 850 – Modification of hydrographic functioning (specifically weirs) 964 – genetic pollution
1103	<i>Alosa fallax</i>	212 – Professional fishing – trawling (bi-catch) 213 – drift net fishing 220 – Leisure fishing 701 – Water pollution (eutrophication) 850 – Modification of hydrographic functioning (specifically weirs) 964 – genetic pollution	212 – Professional fishing – trawling (bi-catch) 220 – Leisure fishing 701 – Water pollution (eutrophication) 850 – Modification of hydrographic functioning (specifically weirs) 964 – genetic pollution

Code	Species/Habitat	Main Pressure	Main Threat
1106	<i>Salmon salar</i>	100 Cultivation 110 Pesticides 120 Fertilization 140 Grazing 160 General Forestry management 161 Forestry planting 200 Fish & Shellfish aquaculture 210 Professional fishing 211 Fixed location fishing 213 Drift net fishing 220 Leisure fishing 243 Trapping/poisoning/poaching 300 Sand & gravel extraction 301 Quarries 310 Peat extraction 312 Mechanical removal of peat 330 Mining 331 Open cast mining 332 Underground mining 400 Urbanisation areas/human habitation 420 Discharges 421 Disposal of household waste 422 Disposal of industrial waste 502 Routes, auto routes 700 Pollution 701 Water pollution 720 Trampling/overuse 810 Drainage 811 Management of aquatic & bank vegetation for drainage purposes 850 Modification of hydrographic functioning. 852 Modifying structures of inland water courses 900 Erosion 910 Silting up 920 Drying out 950 Biocenotic evolution 951 Accumulation of organic material 952 Eutrophication 953 Acidification 954 Invasion by a species 960 Interspecific faunal relations 961 Competition 962 Parasitism 963 Introduction of disease 964 Genetic pollution 965 Predation	100 Cultivation 110 Pesticides 120 Fertilization 140 Grazing 160 General Forestry management 161 Forestry planting 200 Fish & Shellfish aquaculture 210 Professional fishing 243 Trapping/poisoning/poaching 300 Sand & gravel extraction 301 Quarries 310 Peat extraction 312 Mechanical removal of peat 330 Mining 332 Underground mining 331 Open cast mining 400 Urbanisation areas/human habitation 420 Discharges 421 Disposal of household waste 422 Disposal of industrial waste 502 Routes, auto routes 507 Bridges 700 Pollution 701 Water pollution 720 Trampling/overuse 810 Drainage 811 Management of aquatic & bank vegetation for drainage purposes 850 Modification of hydrographic functioning. 852 Modifying structures of inland water courses 900 Erosion 910 Silting up 920 Drying out 950 Biocenotic evolution 951 Accumulation of organic material 952 Eutrophication 953 Acidification 954 Invasion by a species 960 Interspecific faunal relations 961 Competition 962 Parasitism 963 Introduction of disease 964 Genetic pollution 965 Predation
1110	Sandbanks slightly covered by seawater at all times	490, construction and maintenance of windfarms, 212, dermsal fisheries, 220, recreational fishing, 860, dredge disposal	490, construction and maintenance of windfarms, 944, increased storms, 900, erosion, 954, invasion of a non-native species,

Code	Species/Habitat	Main Pressure	Main Threat
			300, sand & gravel extraction, 320, oil, gas and coal extraction
1130	Estuaries	200 Aquaculture 220 Recreational fishing 400 Housing development 420 Sewage outflow 490 Industrialisation 502 Autoroutes 504 Port/Marina 701 Water Pollution 802 Reclamation of land 810 Drainage 820 Dredging 954 Invasion of species.	200 Aquaculture 220 Recreational fishing 400 Housing development 420 Sewage outflow 490 Industrialisation 502 Autoroutes 504 Port/Marina 701 Water Pollution 802 Reclamation of land 810 Drainage 820 Dredging 954 Invasion of species.
1140	Mudflats and sandbanks not covered by seawater at low tide	200 Aquaculture 210 Professional fishing 221 Bait digging 244 Removal of fauna 300 Aggregate extraction (removal of beach material) 422 Disposal of industrial waste 490 Industrialisation 504 Port/Marina 509 Communications networks 701 Water Pollution 802 Reclamation of land 870 Coastal protection works 954 Invasion by a species	200 Aquaculture 210 Professional fishing 221 Bait digging 244 Removal of fauna 300 Aggregate extraction (removal of beach material) 422 Disposal of industrial waste 490 Industrialisation 504 Port/Marina 509 Communications networks 802 Reclamation of land 870 Coastal protection works 954 Invasion by a species
1150	Coastal Lagoons	190 Poaching by cattle 200 Fish and Shellfish Aquaculture 220 Leisure fishing 302 Removal of beach materials (damage to barrier) 400 Urbanised areas, human habitation 410 Industrial or commercial areas 601 Golf course 604 Circuits, tracks 608 Camping and caravans 701 Water pollution 800 Landfill, land reclamation and drying out, general 810 Drainage 850 - 853 Modification of hydrographic functioning (sluices, weirs, prevention of saline influence). 860 Dumping, depositing of dredged deposits 900 Erosion 910 Silting up 920 Drying out 951 Accumulation of organic material 952 Eutrophication 954 Invasion by exotics	400 Urbanised areas, human habitation 410 Industrial or commercial areas 701 Water pollution 810 Drainage 850 - 853 Modification of hydrographic functioning (sluices, weirs, prevention of saline influence). 860 Dumping 900 Erosion 910 Silting up 920 Drying out 951 Accumulation of organic material 952 Eutrophication 954 Invasion by exotics
1160	Large shallow inlets and bays	200 Aquaculture 210 Professional Fishing	200 Aquaculture 210 Professional Fishing

Code	Species/Habitat	Main Pressure	Main Threat
		220 Recreational fishing 244 Removal of fauna 400 Housing development 420 Discharges 502 Autoroutes 504 Port/Marina 701 Water Pollution 802 Reclamation of land 820 Dredging 860 Dumping of dredged material 954 Invasion of species.	220 Recreational fishing 244 Removal of fauna 400 Housing development 420, Discharges 502 Autoroutes 504 Port/Marina 701 Water Pollution 802 Reclamation of land 820 Dredging 860 Dumping of dredged material 954 Invasion of species.
1170	Reefs	210 Professional fishing 240 Taking of Fauna 250 Taking of Flora 701 Water Pollution 990 Climate change 954 invasion of a non-native species.	210 Professional fishing 240 Taking of Fauna 250 Taking of Flora 701 Water Pollution 990 Climate change 954 invasion of a non-native species.
1210	Annual vegetation of drift lines	140 Grazing 302 Sand and gravel extraction – removal of beach materials 622 Walking, horse riding and non-motorised vehicles 623 Outdoor sports and leisure activities - motorised vehicles 690 Other leisure and tourism impacts (beach cleaning) 720 Trampling, overuse 871 Sea defence or coastal protection works	140 Grazing 302 Sand and gravel extraction –removal of beach materials 622 Walking, horse riding and non-motorised vehicles 623 Outdoor sports and leisure activities – motorised vehicles 690 Other leisure and tourism impacts (beach cleaning) 720 Trampling, overuse 871 Sea defence or coastal protection works
1220	Perennial vegetation of stony banks	302 - Sand and gravel extraction - removal of beach materials 423 – Disposal of inert materials 530 – Improved access to site (car park) 622 – Walking, horse riding and non-motorised vehicles 623 – Outdoor sports and leisure activities – motorised vehicles 720 – Trampling, overuse 871 - Sea defence or coastal protection works 900 – Erosion	302 - Sand and gravel extraction –removal of beach materials 423 – Disposal of inert materials 530 – Improved access to site (car park) 622 - Walking, horse riding and non-motorised vehicles 623 - Outdoor sports and leisure activities – motorised vehicles 720 - Trampling, overuse 871 - Sea defence or coastal protection works 900 – Erosion
1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	120 - Fertilisation 140 – Grazing 142 – Overgrazing by sheep 146 – Overgrazing by hare, rabbits and small mammals 150 – Restructuring agricultural land holding 180 – Burning 311 – Hand cutting of peat 403 – Dispersed habitation 420 – Disposal of household waste 502 – Routes, autoroutes 601 – Golf course 608 – Camping and caravans	120 - Fertilisation 140 – Grazing 142 – Overgrazing by sheep 146 – Overgrazing by hare, rabbits and small mammals 150 – Restructuring agricultural land holding 180 – Burning 311 – Hand cutting of peat 403 – Dispersed habitation 420 – Disposal of household waste 502 – Routes, autoroutes 601 – Golf course

Code	Species/Habitat	Main Pressure	Main Threat
		720 – Trampling, overuse 871 – Sea defence/coastal protection works 900 – Erosion	608 – Camping and caravans 720 – Trampling, overuse 871 – Sea defence/coastal protection works 900 – Erosion
1310	Salicornia and other annual colonising mud and sand	140 Grazing 142 Overgrazing by sheep 143 Overgrazing by cattle 402 discontinuous urbanization (development) 622 walking, horseriding and non-motorised vehicles (amenity) 800 Landfill, land reclamation and drying out, general 802 reclamation of land from the sea, estuary or marsh 954 Invasion by species (<i>Spartina anglica</i>)	142 Overgrazing by sheep 143 Overgrazing by cattle 402 discontinuous urbanization (development) 622 walking, horseriding and non-motorised vehicles (amenity) 900 erosion 954 Invasion by species (<i>Spartina anglica</i>)
1320	Spartina Swards	900 erosion 950 Biocoenotic evolution 990 Other natural processes (transition of <i>Spartina</i> sward to other saltmarsh)	802 reclamation of land from the sea, estuary or marsh 871 sea defence or coastal protection works 890 other human induced changes in hydraulic conditions (dredging) 900 erosion 950 Biocoenotic evolution 990 Other natural processes (transition of <i>Spartina</i> sward to other saltmarsh)
1330	Atlantic salt meadows	140 Grazing 142 Overgrazing by sheep 143 Overgrazing by cattle 400 Urbanised areas, human habitation (development) 402 discontinuous urbanization (development) 419 other industrial/commercial areas (development) 422 disposal of industrial waste (dumping) 423 disposal of inert materials (dumping) 490 Other urbanisation, industrial and similar activities (development) 501 paths, tracks, cycling tracks 622 walking, horseriding and non-motorised vehicles (amenity) 800 Landfill, land reclamation and drying out, general 802 reclamation of land from the sea, estuary or marsh 871 sea defence or coastal protection works 900 erosion 954 Invasion by species (<i>Spartina anglica</i>)	142 Overgrazing by sheep 143 Overgrazing by cattle 402 discontinuous urbanization (development) 422 disposal of industrial waste (dumping) 423 disposal of inert materials (dumping) 800 Landfill, land reclamation and drying out, general 802 reclamation of land from the sea, estuary or marsh 871 sea defence or coastal protection works 900 erosion 954 Invasion by species

Code	Species/Habitat	Main Pressure	Main Threat
1355	<i>Lutra lutra</i>	110 Use of pesticides 120 Fertilisation 151 removal of hedges and copses 152 removal of scrub 168 felling of native or mixed woodland 210 Professional fishing 230 Hunting 243 trapping, poisoning, poaching 300 Sand and gravel extraction 302 removal of beach materials 310 Peat Extraction 312 mechanical removal of peat 400 Urbanised areas, human habitation 401 continuous urbanisation 410 Industrial or commercial areas 420 Discharges 421 disposal of household waste 422 disposal of industrial waste 423 disposal of inert materials 424 other discharges 502 routes, autoroutes 507 bridge, viaduct 700 Pollution 701 water pollution 709 other forms or mixed forms of pollution 803 infilling of ditches, dykes, ponds, pools, marshes or pits 810 Drainage 811 management of aquatic and bank vegetation for drainage purposes 820 Removal of sediments (mud ...) 830 Canalisation 852 modifying structures of inland water course	110 Use of pesticides 120 Fertilisation 151 removal of hedges and copses 152 removal of scrub 168 felling of native or mixed woodland 210 Professional fishing 230 Hunting 243 trapping, poisoning, poaching 300 Sand and gravel extraction 302 removal of beach materials 310 Peat Extraction 312 mechanical removal of peat 400 Urbanised areas, human habitation 401 continuous urbanisation 410 Industrial or commercial areas 420 Discharges 421 disposal of household waste 410 Industrial or commercial areas 420 Discharges 421 disposal of household waste 422 disposal of industrial waste 423 disposal of inert materials 424 other discharges 502 routes, autoroutes 507 bridge, viaduct 700 Pollution 701 water pollution 709 other forms or mixed forms of pollution 803 infilling of ditches, dykes, ponds, pools, marshes or pits 810 Drainage 811 management of aquatic and bank vegetation for drainage purposes 820 Removal of sediments (mud ...) 830 Canalisation 852 modifying structures of inland water course
1364	<i>Halichoerus grypus</i>	Negative Impacts: Continued by-catch; Occasional illegal culling; Competition for prey resources with fisheries; Excessive disturbance at key breeding and moulting haul-out sites; Competition for prey resources with fisheries; Excessive disturbance at key breeding and haul-out sites; Tourism-oriented developments on offshore islands.	
1365	<i>Phoca vitulina</i>	Negative Impacts: Continued by-catch; Occasional illegal culling; Competition for prey resources with fisheries; Disturbance at key breeding and moulting haul-out sites;	
1395	<i>Petalophyllum ralfssi</i>	120 Fertilisation 148 Overgrazing general 149 Undergrazing 150 Restructuring agricultural land holding 171 Stock feeding	120 Fertilisation 141 Abandonment of pastoral systems 148 Overgrazing, general 149 Undergrazing 150 Restructuring agricultural

Code	Species/Habitat	Main Pressure	Main Threat
		501 Paths, tracks, cycling tracks 600 Sport and leisure structures 620 Outdoor sports and leisure activities 810 Drainage 701 Water pollution 900 Erosion	land holding 171 Stock feeding 600 Sport and leisure structures 620 Outdoor sports and leisure activities 810 Drainage 900 Erosion 920 Drying out
1410	Mediterranean salt meadows	140 Grazing 142 Over-grazing by sheep 143 Over-grazing by cattle 402 discontinuous urbanization (development) 422 disposal of industrial waste (dumping) 423 disposal of inert materials (dumping) 490 Other urbanisation, industrial and similar activities (development) 501 paths, tracks, cycling tracks 800 Landfill, land reclamation and drying out, general 802 reclamation of land from the sea, estuary or marsh 900 erosion	142 Over-grazing by sheep 143 Over-grazing by cattle 402 discontinuous urbanization (development) 422 disposal of industrial waste (dumping) 423 disposal of inert materials (dumping) 490 Other urbanisation, industrial and similar activities (development) 501 paths, tracks, cycling tracks 800 Landfill, land reclamation and drying out, general 802 reclamation of land from the sea, estuary or marsh 900 erosion
1421	<i>Trichomanes speciosum</i>	250 Collection of samples 620 Outdoor sport and leisure 164 Woodland clearance 148 Overgrazing general 501 Paths, tracks, cycling tracks 990 Natural processes such as wind felling of trees 850 Modifications to the hydrology of a catchments through afforestation, road development or hydro-electric engineering 701 Water pollution 120 Fertilisation 702 Air pollution (hydrocarbons)	250 Collection of samples 620 Outdoor sport and leisure 690 Human disturbance in localities used for recreational purposes 164 Woodland clearance 148 Overgrazing general 990 Natural processes such as wind felling of trees 850 Modifications to the hydrology of a site through afforestation, road development or hydro-electric engineering 701 Water pollution (Sewage, fertilisers) 702 Air pollution (hydrocarbons) 990 Global warming drought 990 Climate change
1990	<i>Margaritifera durrovensis</i>	101 Modification of cultivation practices 103 Agricultural improvement (for the same reasons) 120 Fertilisation 148 Overgrazing, general 150 Restructuring agricultural land holding 160 General forestry management 171 Stock feeding 220 Leisure fishing 240 Taking / removal of fauna 300 Sand and gravel extraction 301 Quarries	101 Modification of cultivation practices 103 Agricultural improvement (for the same reasons) 120 Fertilisation 148 Overgrazing, general 150 Restructuring agricultural land holding 160 General forestry management 171 Stock feeding 220 Leisure fishing 240 Taking / removal of fauna 300 Sand and gravel extraction

Code	Species/Habitat	Main Pressure	Main Threat
		310 Peat extraction 400 Urbanised areas, human habitation 410 Industrial and commercial areas 420 Discharges 421 Disposal of household waste 500 Communications networks 502 Routes, autoroutes 507 Bridge, viaduct 700 Pollution 810 Drainage 830 Canalisation 850 Modification of hydrographic functioning 900 Erosion	301 Quarries 310 Peat extraction 400 Urbanised areas, human habitation 410 Industrial and commercial areas 420 Discharges 421 Disposal of household waste 500 Communications networks 502 Routes, autoroutes 507 Bridge, viaduct 700 Pollution 810 Drainage 830 Canalisation 850 Modification of hydrographic functioning 900 Erosion 890 Other human induced changes in hydraulic (and other) conditions – Climate change 966 Antagonism arising from introduction of species
1351	Harbour porpoise	Negative impacts: Insufficient data on range, especially offshore. No Conservation Plans/Objectives published for cSACs. Insufficient data on bycatch rate in most fisheries. Insufficient data available on diet and potential for competition with fisheries.	
2110	Embryonic shifting dunes	300 – Sand and gravel extraction 302 – Removal of beach materials 622 - Walking, horseriding and non-motorised vehicles 623 - Motorised vehicles 720 - Trampling, overuse 871 - Sea defence or coastal protection works 900 – Erosion	622 - Walking, horseriding and non-motorised vehicles 623 - Motorised vehicles 720 - Trampling, overuse 871 - Sea defence or coastal protection works 900 – Erosion 990 – Other natural processes (depletion of sediment source)
2120	Shifting dunes along the shoreline with <i>ammophila arenaria</i> (white dunes)	140 – Grazing 300 – Sand and gravel extraction 302 – Removal of beach materials 501 – Paths, tracks, cycling routes 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 720 – Trampling, overuse 871 – Sea defence or coastal protection works 900 – Erosion	140 – Grazing 300 – Sand and gravel extraction 302 – Removal of beach materials 501 – Paths, tracks, cycling routes 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 720 – Trampling, overuse 871 – Sea defence or coastal protection works 900 – Erosion 990 – Other natural processes (depletion of sediment source)
2130	Fixed dunes with herbaceous vegetation (grey dunes)	102 – Mowing/cutting 103 – Agricultural improvement 120 – Fertilisation 140 – Grazing 141 – Abandonment of pastoral systems	102 – Mowing/cutting 103 – Agricultural improvement 120 – Fertilisation 140 – Grazing 141 – Abandonment of pastoral systems

Code	Species/Habitat	Main Pressure	Main Threat
		142 – Overgrazing by sheep 143 – Overgrazing by cattle 146 – Overgrazing by hares, rabbits, small mammals 149 – Undergrazing 150 – Restructuring agricultural holding 171 – Stock feeding 180 – Burning 300 – Sand and gravel extraction 400 – Urbanised areas, human habitation 402 – Discontinuous urbanisation 403 – Dispersed habitation 421 – Disposal of household waste 490 – Other urbanisation, industrial or similar activities 501 – Paths, tracks, cycling routes 502 – Routes, autoroutes 601 – Golf course 607 – Sports pitch 608 – Camping and caravans 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 700 – Pollution 720 – Trampling, overuse 790 – Other pollution or human activities 871 – Sea defence or coastal protection works 900 – Erosion 954 – Invasion by a species 971 – Competition	142 – Overgrazing by sheep 143 – Overgrazing by cattle 146 – Overgrazing by hares, rabbits, small mammals 149 – Undergrazing 150 – Restructuring agricultural holding 171 – Stock feeding 180 – Burning 300 – Sand and gravel extraction 400 – Urbanised areas, human habitation 402 – Discontinuous urbanisation 403 – Dispersed habitation 421 – Disposal of household waste 490 – Other urbanisation, industrial or similar activities 501 – Paths, tracks, cycling routes 502 – Routes, autoroutes 601 – Golf course 607 – Sports pitch 608 – Camping and caravans 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 700 – Pollution 720 – Trampling, overuse 790 – Other pollution or human activities 871 – Sea defence or coastal protection works 900 – Erosion 954 – Invasion by a species 971 – Competition
2170	Dunes with <i>Salix repens</i>	103 – Agricultural improvement 140 – Grazing 143 – Overgrazing by cattle 149 – Undergrazing 150 – Restructuring agricultural land holding 160 – Forestry 171 – Stock feeding 430 – Agricultural structures 622 – Walking, horseriding and non-motorised vehicles 720 – Trampling, overuse 954 – Invasion by a species 971 – Competition	103 – Agricultural improvement 140 – Grazing 143 – Overgrazing by cattle 149 – Undergrazing 150 – Restructuring agricultural land holding 160 – Forestry 171 – Stock feeding 430 – Agricultural structures 622 – Walking, horseriding and non-motorised vehicles 720 – Trampling, overuse 954 – Invasion by a species 971 – Competition
2190	Humid Dune slacks	103 – Agricultural improvement 120 – Fertilisation 140 – Grazing 142 – Overgrazing by sheep 143 – Overgrazing by cattle 146 – Overgrazing by hare,	103 – Agricultural improvement 120 – Fertilisation 140 – Grazing 142 – Overgrazing by sheep 143 – Overgrazing by cattle 146 – Overgrazing by hare,

Code	Species/Habitat	Main Pressure	Main Threat
		rabbits, small mammals 149 – Undergrazing 150 – Restructuring agricultural land holding 160 – Forestry 171 – Stock feeding 601 – Golf course 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 720 – Trampling, overuse 810 – Drainage 890 – Other human induced changes in hydraulic conditions 954 – Invasion by a species	rabbits, small mammals 149 – Undergrazing 150 – Restructuring agricultural land holding 160 – Forestry 171 – Stock feeding 601 – Golf course 622 – Walking, horseriding and non-motorised vehicles 623 – Motorised vehicles 720 – Trampling, overuse 810 – Drainage 890 – Other human induced changes in hydraulic conditions 920 – Drying out 954 – Invasion by a species ³
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelleta uniflorae</i> and or Isoeto-Nanojuncetae	120 Fertilisation 140 Grazing 160 General Forestry management 310 Peat Extraction 700 Pollution 954 Invasive species	120 Fertilisation 140 Grazing 160 General Forestry management 310 Peat Extraction 403 Dispersed habitation 600 Sport and leisure structures 700 Pollution 954 Invasive species
1340	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp	120 Fertilisation 140 Grazing 160 General Forestry management 310 Peat Extraction 700 Pollution 954 Invasive species	120 Fertilisation 140 Grazing 160 General Forestry management 310 Peat Extraction 403 Dispersed habitation 600 Sport and leisure structures 700 Pollution 954 Invasive species
3160	Natural dystrophic lakes and ponds	140 Grazing 150 Restructuring agricultural land holding 160 General Forestry management 180 Burning 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 810 Drainage	140 Grazing 150 Restructuring agricultural land holding 160 General Forestry management 180 Burning 312 Mechanical removal of peat 810 Drainage
3260	Water course of plain to montaine levels with Ranunculion fluitantis and callitriccho-Batrachion vegetation	120 – Fertilisation; 140 – Grazing; 160 – Forestry; 180 – Burning; 220 – Leisure fishing; 310 – Peat extraction; 420 - Discharges; 700 – Water Pollution; 810 – Drainage; 900 – Erosion; 954 – Invasive species.	120 - Fertilisation 140 - Grazing 160 - General Forestry management 310 - Peat Extraction 700 - Pollution 954 - Invasive species
4030	European Heath Dry	148 Overgrazing 141 Abandonment of pastoral systems 160 General Forestry management	148 Overgrazing 141 Abandonment of pastoral systems 160 General Forestry

Code	Species/Habitat	Main Pressure	Main Threat
		161 Forestry planting 180 Burning 120 Fertilisation 103 Agricultural improvement 300 Sand and gravel extraction	management 161 Forestry planting 180 Burning 120 Fertilisation 103 Agricultural improvement 300 Sand and gravel extraction
4060	Alpinie and Boreal Heath	141 Abandonment of Pastoral Systems – in the Burren 142 Overgrazing by sheep 180 Burning 301 Quarries 500 Communications networks 501 Paths, tracks or cycling paths 510 Energy transport 513 Other forms – wind generated energy 530 Improved access to the site 610 Outdoor sports and leisure activities 622 Walking, horse riding and non-motorised vehicles 623 Motorised vehicles 624 Mountaineering, rock climbing, speleology 700 Pollution 702 Air pollution – acidification – from acid rain 720 Trampling, overuse	141 Abandonment of Pastoral Systems – in the Burren 142 Overgrazing by sheep 180 Burning 301 Quarries 500 Communications networks 501 Paths, tracks or cycling paths 510 Energy transport 513 Other forms – wind generated energy 530 Improved access to the site 610 Outdoor sports and leisure activities 622 Walking, horse riding and non-motorised vehicles 623 Motorised vehicles 624 Mountaineering, rock climbing, speleology 700 Pollution 702 Air pollution – acidification – from acid rain 720 Trampling, overuse
6210	Semi-natural dry grassland and scrubland facies on calcareous substrate	954 Invasion by a species 149 Undergrazing 120 Fertilisation 103 Agricultural improvement 141 Abandonment of pastoral systems 301 Sand & gravel extraction: quarries	954 Invasion by a species 149 Undergrazing 120 Fertilisation 103 Agricultural improvement 141 Abandonment of pastoral systems 301 Sand & gravel extraction: quarries
6230	Species-rich Nardus grassland	954 Invasion by a species 149 Undergrazing 120 Fertilisation 103 Agricultural improvement 142 Overgrazing by sheep 160 General forestry management	954 Invasion by a species 149 Undergrazing 120 Fertilisation 103 Agricultural improvement 142 Overgrazing by sheep 160 General forestry management
6410	Molina meadows on calcareous peaty or clayey silt laden soils	141 Abandonment of pastoral systems 810 Drainage 140 Grazing (cessation) 103 Agricultural improvement	141 Abandonment of pastoral systems 810 Drainage 140 Grazing (cessation) 103 Agricultural improvement
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	811 management of aquatic and bank vegetation for drainage purposes 870 dykes, embankments 954 Invasion by a species	811 management of aquatic and bank vegetation for drainage purposes 870 dykes, embankments 954 Invasion by a species
7110	Active Raised Bog	150 Restructuring agricultural land holding 160 General Forestry management	150 Restructuring agricultural land holding 160 General Forestry

Code	Species/Habitat	Main Pressure	Main Threat
		161 Forestry planting 180 Burning 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 810 Drainage 954 Invasion by a species	management 180 Burning 312 Mechanical removal of peat 810 Drainage 954 Invasion by a species
7120	Degraded Raised bog still capable of regeneration	150 Restructuring agricultural land holding 160 General Forestry management 161 Forestry planting 180 Burning 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 810 Drainage 954 Invasion by a species	150 Restructuring agricultural land holding 160 General Forestry management 180 Burning 312 Mechanical removal of peat 810 Drainage 954 Invasion by a species
7130	Blanket Bog (and Active Blanket Bog)	140 Grazing 160 General Forestry Management 161 Forestry planting 180 Burning 301 Quarries 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 421 Disposal of household waste 502 Roads, motorways 512 Wind Farm Development 530 Improved access to site 810 Drainage 900 Erosion 800 Land reclamation	142 Grazing 160 General Forestry Management 180 Burning 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 403 Dispersed habitation 511 Electricity lines 512 Wind Farm Development 622 Walking, horse-riding, non-motorised vehicles 791 Climate change 810 Drainage 900 Erosion 954 Invasion by a species
7140	Transition mire and quaking bog	140 Overgrazing 150 Restructuring agricultural land holding 161 Forestry planting 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 701 Water Pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions	140 Overgrazing 150 Restructuring agricultural land holding 310 Peat Extraction 312 Mechanical removal of peat 701 Water Pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions
7150	Depressions on peat substrates of the Rhynchosporion	810 Drainage 142 Overgrazing by sheep 161 Forestry planting 180 Burning 312 Mechanical removal of peat 900 Erosion	810 Drainage 180 Burning 312 Mechanical removal of peat 142 Overgrazing by sheep 161 Forestry planting 800 Landfill, land reclamation and drying out, general 791 Climate change (via habitat desiccation and possibly 954) 900 Erosion

Code	Species/Habitat	Main Pressure	Main Threat
			954 Invasion by a species
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	140 Overgrazing 150 Restructuring agricultural land holding 161 Forestry Planting 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 701 Water pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage	140 Overgrazing 150 Restructuring agricultural land holding 310 Peat Extraction 312 Mechanical removal of peat 701 Water pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions
7220	Petrifying Springs with tufa formation	140 Overgrazing 150 Restructuring agricultural land holding 310 Peat Extraction 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions	140 Overgrazing 150 Restructuring agricultural land holding 310 Peat Extraction 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions
7230	Alkaline Fen	140 Overgrazing 150 Restructuring agricultural land holding 161 Forestry Planting 310 Peat Extraction 311 Hand-cutting of peat 312 Mechanical removal of peat 701 Water pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage	140 Overgrazing 150 Restructuring agricultural land holding 310 Peat Extraction 312 Mechanical removal of peat 701 Water pollution 800 Landfill, land reclamation and drying out, general 803 Infilling ditches, dykes, ponds, marshes and pits 810 Drainage 890 Other human induced changes in hydraulic conditions
8110	Siliceous Scree of the montane to snow level	142 Overgrazing by sheep 390 Mining and extraction activities 301 Quarries 501 Paths, tracks or cycling paths 530 Improved access to the sites 610 Outdoor sports and leisure activities 624 Mountaineering, rock climbing, speleology 702 Air pollution – acidification 720 Trampling, overuse	142 Overgrazing by sheep 501 Paths, tracks or cycling paths 530 Improved access to the site 610 Outdoor sports and leisure activities 624 Mountaineering, rock climbing, speleology 702 Air pollution – acidification 720 Trampling, overuse
8210	Calcareous rock slopes with chasmophytic vegetation	142 Overgrazing by sheep 390 Mining and extraction activities 624 Mountaineering, rock climbing, speleology	142 Overgrazing by sheep 390 Mining and extraction activities 702 Air pollution – acidification
8220	Siliceous rocky slopes with chasmophytic vegetation	142 Overgrazing by sheep 390 Mining and extraction activities 301 Quarries 501 Paths, tracks or cycling paths 530 Improved access to the sites	142 Overgrazing by sheep 501 Paths, tracks or cycling paths 530 Improved access to the site 610 Outdoor sports and leisure

Code	Species/Habitat	Main Pressure	Main Threat
		610 Outdoor sports and leisure activities 624 Mountaineering, rock climbing, speleology 702 Air pollution – acidification 720 Trampling, overuse	activities 624 Mountaineering, rock climbing, speleology 702 Air pollution – acidification 720 Trampling, overuse
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	140 Grazing 160 General forestry management 400 Urbanised areas, human habitation 500 Communication networks 954 Invasion by species	140 Grazing 160 General forestry management 400 Urbanised areas, human habitation 500 Communication networks 954 Invasion by species
91E0	Alluvial forests with Alnus gultinosa and Fraxinus excelsior	160 General forestry management 400 Urbanised areas, human habitation 500 Communication networks 810 Drainage 954 Invasion by a species	160 General forestry management 400 Urbanised areas, human habitation 500 Communication networks 810 Drainage 954 Invasion by a species