

NATURA IMPACT STATEMENT - APPENDIX I

SUMMARY DETAILS OF ALL EUROPEAN SITES CONSIDERED DURING THE APPROPRIATE ASSESSMENT

IN SUPPORT OF THE
APPROPRIATE ASSESSMENT

OF THE
TRANSPORT STRATEGY
FOR THE
GREATER DUBLIN AREA
2016-2035

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

for: National Transport Authority

Dún Scéine,
Iveagh Court,
Harcourt Lane,
Dublin 2



by: CAAS Ltd.

2nd Floor, The Courtyard,
25 Great Strand Street,
Dublin 1



MARCH 2016

Introduction

This appendix presents background summary data relating to each European site (cSACs and SPAs) that were considered during the Appropriate Assessment of the Transport Strategy for the Greater Dublin Area 2016-2035. Data presented has been collated from various sources made available by the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht.

Sites are presented in two separate lists, firstly SACs and secondly SPAs. All sites within each list are sorted according to NPWS Site Code.

The principal sources of information include the following:

- *Site Synopses*
- *NATURA 2000 Standard Data Forms*
- *Conservation Objective (Generic Versions)*
- *Detailed Site Specific Conservation Objectives and supporting documents (where available)*

Data presented on each site includes:

- *Site Name*
- *Site Code*
- *County*
- *SSCO Published or not (as of August 2015)*
- *Location relevant to the Strategy area*
- *Previously reported threats*
- *Qualifying Interests (QIs) in the case of SACs:*
 - *Listed Annex I habitats for which site is selected - abbreviated version as used by NPWS (2013)¹*
 - *Listed Annex II species for which site is selected - common English name*
- *Special Conservation Interests (SCIs) in the case of SPAs:*
 - *Listed Annex I birds for which site is selected (Annex I SCIs) - common English name*
 - *Non – annex birds for which site is selected (Non Annex I SCIs) - common English name*

¹ NPWS (2013). The Status of EU Protected Habitats and Species in Ireland. Overview Volume I. Unpublished Report, National Parks and Wildlife Services.

Summary data relating to all relevant cSACs sorted according to site name

Site Name: Killyconny Bog (Cloghbally) SAC

Site Code: 000006

County (s): Cavan, Meath

SSCOs Published: No

Location: Within study area

Threats

This site is especially vulnerable to the effects of peat cutting and drainage which are causing water loss and an overall deterioration in habitat quality. The cutover margins are vulnerable to agricultural reclamation.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Degraded raised bogs

Raised bog (active)*

Site Name: Baldoyle Bay SAC

Site Code: 000199

County (s): Dublin

SSCOs Published: Yes

Location: Within study area

Threats

A substantial part of the site is a Nature Reserve and is not significantly threatened in any way. The part of the site at the Mayne River, outside of the Nature Reserve, has been proposed for development in the past and is still considered to be under threat. The site receives pollution from a number of sources, chiefly the inflowing rivers but also an unsatisfactory sewage network. A new sewage works has been planned. Bait digging and controlled wildfowling may be problems. Spartina is well established in the inner estuary and may be causing unfavourable interactions with the intertidal and salt marsh habitats. Sterna albifrons formerly nested but regular disturbance is a problem.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Atlantic salt meadows

Mediterranean salt meadows

Salicornia mud

Tidal mudflats

Site Name: Howth Head SAC

Site Code: 000202

County (s): Dublin

SSCOs Published: No

Location: Within study area

Threats

At present the only threats are control of heath fires and possibly excess visitors. In future the growth of Dublin may increase visitor pressure and possibly air pollution. Overfishing in the Irish Sea may affect sea bird numbers.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Dry heaths

Sea cliffs

Site Name: Lambay Island SAC

Site Code: 000204

County (s): Dublin

SSCOs Published: Yes

Location: Within 5km of study area

Threats

The island has been maintained as a wildlife sanctuary by its owners for all of this century. No threats are envisaged should the present landuse continue. Rodents may be causing some damage to burrow nesting seabirds. There is some over-fishing in the marine areas.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Sea cliffs

Common Seal

Grey Seal

Site Name: Malahide Estuary SAC

County (s): Dublin

Threats

SSCOs Published: Yes

Location: Within study area

Site Code: 000205

Threats

The main problems or threats affecting this site are recreational activities, water pollution and infilling. Owing to the proximity of two large towns, the area is very popular for water sports and other amenity activities. These can disturb the bird populations and impact on the dune habitats, and the intensity of such activities is likely to increase in the future. Pollution, mostly nutrients, enters the system from the Broadmeadows River and from sewage plants at Swords and Malahide. The inner estuary is particularly affected owing to its lagoonal character. The efficiency of the sewage plants may be upgraded in the future. Parts of the estuary have been infilled in the past for various developments and this remains a threat.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

- Atlantic salt meadows
- Fixed dunes (grey dunes)*
- Marram dunes (white dunes)
- Mediterranean salt meadows
- Salicornia mud
- Spartinion
- Tidal mudflats

Site Name: North Dublin Bay SAC

County (s): Dublin

Threats

SSCOs Published: No

Location: Within study area

Site Code: 000206

Threats

Dunes are subject to high recreational pressures and moderate levels of grazing by rabbits which cause some localised damage. Damaged areas, however, are monitored by Dublin Corporation and appropriate management implemented. Abstraction of water by the golf clubs could result in a lowering of the water table which could affect the humid dune slacks. Any extensions to the two golf courses would be deleterious. The intertidal areas receive polluted water though there are no apparent significant impacts on the associated flora and fauna. Owing to its location in Dublin Bay, pollution such as oil spillages from Dublin Port and shipping is a threat. Commercial bait digging is a problem and causes disturbance to wintering birds.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

- Atlantic salt meadows
 - Drift lines
 - Dune slack
 - Embryonic shifting dunes
 - Fixed dunes (grey dunes)*
 - Marram dunes (white dunes)
 - Mediterranean salt meadows
 - Salicornia mud
 - Tidal mudflats
- Petalwort

Site Name: Rogerstown Estuary SAC		Site Code: 000208	
County (s): Dublin	SSCOs Published: Yes	Location: Within study area	
Threats			
A significant part of estuary (intertidal flats and salt marsh) has been lost due to landfilling and this remains a threat. Landfill site is also a major source of pollution to estuary. Other sources of pollution include input of raw sewage from a local town and general pollution inputs from a rich agricultural hinterland. Dunes at site are considered to be in a highly vulnerable state due to a combination of natural (i.e. erosion) and anthropogenic factors. Erosion has removed much of nesting area of Sterna albifrons.			
Habitat QIs (Annex I Habitats):		Species QIs (Annex II Species):	
Atlantic salt meadows			
Estuaries			
Fixed dunes (grey dunes)*			
Marram dunes (white dunes)			
Mediterranean salt meadows			
Salicornia mud			
Tidal mudflats			
Site Name: South Dublin Bay SAC		Site Code: 000210	
County (s): Dublin	SSCOs Published: Yes	Location: Within 5km of study area	
Threats			
The main threat to this site is further reclamation for industrial and/or infrastructural purposes. The intertidal areas receive water that is somewhat polluted though there are no apparent impacts on the associated flora and fauna. Owing to its location in Dublin Bay, pollution such as oil spillages from Dublin Port and shipping is a threat. Commercial bait digging may be a problem and causes disturbance to wintering birds. Disturbance to birds is also caused by walkers and dogs.			
Habitat QIs (Annex I Habitats):		Species QIs (Annex II Species):	
Tidal mudflats			
Site Name: Ballynafagh Bog SAC		Site Code: 000391	
County (s): Kildare	SSCOs Published: No	Location: Within study area	
Threats			
The wettest section of this site is probably protected at present, as it is located in a subsidence hollow. However ongoing peat cutting threatens its long term viability. Old and recent drains are increasing water loss. A recent fire event on the SW has increased surface water run-off. Further afforestation on the bog would be very damaging.			
Habitat QIs (Annex I Habitats):		Species QIs (Annex II Species):	
Degraded raised bogs			
Raised bog (active)*			
Rhyncosporion depressions			
Site Name: Pollardstown Fen SAC		Site Code: 000396	
County (s): Kildare	SSCOs Published: No	Location: Within study area	
Threats			
Largely protected as a nature reserve, the site is nonetheless vulnerable to interference with the Curragh aquifer.			
Habitat QIs (Annex I Habitats):		Species QIs (Annex II Species):	
Alkaline fens		Desmoulin's whorl snail	
Cladium fen*		Gever's whorl snail	
Petrifying springs*		Narrow-mouthed whorl snail	

Site Name: Lough Ennell SAC

County (s): Westmeath

Threats

SSCOs Published: No

Location: Within 15km of study area

Site Code: 000685

Species QIs (Annex II Species):

Eutrophication, owing to sewage and fertiliser inputs, has been a problem since the 1970's. There has recently been significant improvement, however, as a result of reduction of phosphate in the effluent from Mullingar Sewage Treatment Plant, and in 1990 the water was classified as mesotrophic. Remobilisation of phosphate from the sediments of the lake is likely to continue, as well as runoff from surrounding lands. Boating activities on the lake could cause damage to the fragile Chara species.

Habitat QIs (Annex I Habitats):

Alkaline fens

Site Name: Ballyman Glen SAC

County (s): Dublin, Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 000713

Species QIs (Annex II Species):

Ballyman Glen is surrounded by intensively managed agricultural grassland and is vulnerable to nutrient run-off from this source. The petrifying springs could be threatened by over-extraction of water locally.

Habitat QIs (Annex I Habitats):

Alkaline fens
Petrifying springs*

Site Name: Bray Head SAC

County (s): Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 000714

Species QIs (Annex II Species):

The main threats to this site are reclamation of heath and grassland habitats, burning and recreational pressures. Reclamation for agriculture has occurred in the past and continues to be a threat. Burning of heath is a regular event and may be occurring too frequently. The site is a popular area for recreational activities, especially walking. Recreational pressures are likely to increase in the future owing to a growing population in surrounding areas.

Habitat QIs (Annex I Habitats):

Dry heaths
Sea cliffs

Site Name: Carriggower Bog SAC

County (s): Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 000716

Species QIs (Annex II Species):

A main threat to this site is lowering of the water table due to drainage attempts. A drainage channel has already been dug at the eastern end of site though its impact on the bog is not known. Part of the site is semi-improved grassland and any intensification of grazing could be damaging. Forestry is widespread in the area and is a general threat.

Habitat QIs (Annex I Habitats):

Transition mires

Site Name:	Vale of Clara (Rathdrum Wood) SAC	Site Code:	000733
County (s):	Wicklow	SSCOs Published:	No
Location:	Within study area		
Threats	he main threat to this site is the regeneration of exotic conifers.		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Old oak woodlands			
Site Name:	Blackstairs Mountains SAC	Site Code:	000770
County (s):	Carlow, Wexford	SSCOs Published:	No
Location:	Within 15km of study area		
Threats	The site is particularly vulnerable to afforestation with coniferous species - much of the land surrounding the site has been planted. The site is also vulnerable to overgrazing and to uncontrolled burning.		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Dry heaths			
Wet heath			
Site Name:	Slaney River Valley SAC	Site Code:	000781
County (s):	Carlow, Wicklow, Wexford	SSCOs Published:	Yes
Location:	Within study area		
Threats	Most of the habitats and species of ecological importance within this site are dependant on good water quality. While generally good, the system receives nutrient run-off from agricultural activities and also inputs of pollution from point sources associated with domestic and industrial activities. Any increases in the present levels of pollution could be harmful to water quality. Localised reclamation has occurred along the banks of the river and in the marginal areas of the estuary and any further reclamation is undesirable.		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Estuaries	Atlantic Salmon		
Floating river vegetation	Brook Lamprev		
Old oak woodlands	Common Seal		
Residual alluvial forests*	Freshwater Pearl Mussel		
Tidal mudflats	Otter		
	River Lamprev		
	Sea Lamprev		
	Twaite Shad		
Site Name:	The Long Derries, Edenderry SAC	Site Code:	000925
County (s):	Offaly	SSCOs Published:	No
Location:	Within 5km of study area		
Threats	The calcareous grassland on the site is particularly vulnerable to changes in the grazing and fertilization regimes. This habitat is also threatened by the encroachment of scrub and by afforestation with coniferous species. The gravel pits, sites of three of the rare plant species, are threatened by continued gravel extraction, dumping and overuse by motorbikes. The ornithological interest of the site is vulnerable to disturbance from shooting.		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Orchid-rich calcareous grassland*			

Site Name:	Glenasmole Valley SAC	Site Code:	001209
County (s):	Dublin	SSCOs Published:	No
Location:	Within study area		
Threats	<p>Much of the dry calcareous grassland has been improved to some extent in recent decades by fertilisation and reseeded, and remains vulnerable to further improvement for agriculture. The Molinia meadows are also vulnerable to agricultural intensification, including drainage. There are no apparent threats to the petrifying springs.</p>		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Molinia meadows			
Orchid-rich calcareous grassland*			
Petrifying springs*			
Site Name:	Ballynafagh Lake SAC	Site Code:	001387
County (s):	Kildare	SSCOs Published:	No
Location:	Within study area		
Threats	<p>At present there are no significant threats to this site. Water levels in the lake have dropped over time and some management might be required to maintain open water in the future. There is a proposal to reopen the disused feeder canal - this would require raising of the water levels which would be damaging to some habitats and the Vertigo moulinsiana population. Detailed environmental impact assessment would be required before this could happen.</p>		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Alkaline fens	Desmoulin's whorl snail		
	Marsh Fritillary		
Site Name:	Rye Water Valley/Carton SAC	Site Code:	001398
County (s):	Kildare, Meath	SSCOs Published:	No
Location:	Within study area		
Threats	<p>The woodland section of the site is vulnerable to woodland clearance - resulting in habitat loss for some of the rare flowering plants present. The Rye Water is vulnerable to pollution - much of the surrounding land is agricultural. The petrifying spring and Vertigo species are particularly vulnerable to urban development and to dumping.</p>		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Petrifying springs*	Desmoulin's whorl snail		
	Narrow-mouthed whorl snail		
Site Name:	Clogher Head SAC	Site Code:	001459
County (s):	Louth	SSCOs Published:	No
Location:	Within 10km of study area		
Threats	<p>The site is vulnerable to overgrazing, land reclamation, burning and building. Since 1972 the area of heath on the headland has been reduced through building and agricultural development. Amenity use may cause local erosion.</p>		
Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):		
Dry heaths			
Sea cliffs			

Site Name: Kilpatrick Sandhills SAC

County (s): Wexford

Threats

SSCOs Published: No

Location: Within 5km of study area

Site Code: 001742

The main landuses which presently occur on this site are grazing by cattle and recreational activities. Grazing has not caused significant damage to date but any increases in stocking rates could threaten the stability of the dunes. There is some erosion of the dunes in the southern part of the site due to tracks leading to the beach. An increase in the numbers of visitors to the area would probably be detrimental to the site unless carefully managed.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Decalcified dune heath*

Drift lines

Embryonic shifting dunes

Fixed dunes (grey dunes)*

Marram dunes (white dunes)

Site Name: Holdenstown Bog SAC

County (s): Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 001757

The main potential threats to this site are drainage and infilling. A small amount of infilling has already occurred along the public road which skirts the northern boundary of site. A similar area of bog a little to the north has been drained and converted to grassland since the 1970s. Agricultural run-off is likely to be entering the site from surrounding areas though the effects of this are unknown.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Transition mires

Site Name: Magherabeg Dunes SAC

County (s): Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 001766

At present, this site does not appear to be vulnerable to any particular pressures. There is no public access to the area and therefore recreational pressures are low. Natural erosion is evident in the southern part of site. The dry grassland at Ardmore Point is grazed by cattle but the dunes have not been grazed in recent years.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Decalcified dune heath*

Drift lines

Embryonic shifting dunes

Fixed dunes (grey dunes)*

Marram dunes (white dunes)

Petrifying springs*

Site Name: White Lough, Ben Loughs and Lough Doo SAC

County (s): Meath, Westmeath

Threats

SSCOs Published: No

Location: Within study area

Site Code: 001810

Attempts at agricultural improvement, which have already occurred on a small scale, is the main threat to this site. Recurrence of crayfish plague could have serious impact on the population of that species.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Hard water lakes

White-Clawed Crayfish

Site Name: Boyne Coast and Estuary SAC

County (s): Louth, Meath

Threats

SSCOs Published: Yes

Location: Within study area

Habitat QIs (Annex I Habitats):

Atlantic salt meadows
Embryonic shifting dunes
Estuaries
Fixed dunes (grey dunes)*
Marram dunes (white dunes)
Mediterranean salt meadows
Salicornia mud
Tidal mudflats

Species QIs (Annex II Species):

Site Name: Lough Bane and Lough Glass SAC

County (s): Meath, Westmeath

Threats

SSCOs Published: No

Location: Within study area

Habitat QIs (Annex I Habitats):

Hard water lakes

Species QIs (Annex II Species):

White-Clawed Crayfish

Site Name: Lough Lene SAC

County (s): Westmeath

Threats

SSCOs Published: No

Location: Within 5km of study area

Habitat QIs (Annex I Habitats):

Hard water lakes

Species QIs (Annex II Species):

White-Clawed Crayfish

Site Name: Wicklow Mountains SAC

County (s): Dublin, Wicklow

Threats

SSCOs Published: No

Location: Within study area

Site Code: 002122

Threats

The main threat to the quality of habitats on the site is overgrazing by sheep, affecting the bog, heath and rocky habitats and both deer and sheep affecting the woodlands. Localised peat extraction and heavy burning is a threat to the blanket bog. The spread of non-native species is a threat to the quality of the woodlands. Many recreational activities occur within the site and some, such as hill walking and climbing, have potential for disturbance to habitats and species. Peat erosion is frequent on the peaks - this may be a natural process but is likely to be accelerated by activities such as grazing.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Alpine and subalpine heath

Blanket bog (active)*

Calcareous rocky slopes

Dry heaths

Dystrophic lakes

Old oak woodlands

Siliceous rocky slopes

Siliceous scree

Soft water lakes with base rich influences

Species-rich nardus upland grassland*

Wet heath

Otter

Site Name: Mountmellick SAC

County (s): Laois

Threats

SSCOs Published: No

Location: Within 10km of study area

Site Code: 002141

Threats

Vertigo moulinsiana was formerly more widespread in the canal area but has disappeared from most of its recorded sites with the dredging and reopening of canal navigation channels. Area immediately west of Dangan’s Bridge has been drained and is now grassland. As site is state owned, prospects are good.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Desmoulin's whorl snail

Site Name: River Barrow and River Nore SAC

Site Code: 002162

County (s): Carlow, Kildare, Kilkenny, Laois,

SSCOs Published: Yes

Location: Within study area

Threats

30% of the site consists of water: 10% freshwater and 20% of estuarine and tidal stretches. The Annex II species listed in Section 4.2 are dependent on the quality of these waters. Much of the site along the water courses is under threat from pollution caused by increased fertiliser application, sewage and industrial waste. There is also loss of saltmeadow habitat with two legally protected species and a rare sedge, as a result of infilling and agricultural intensification. Alosa fallax may be vulnerable to angling pressure. Aquaculture occurs in Waterford Harbour and may be causing some disturbance to the intertidal sediments and wintering birds - intensification of aquaculture is a threat.

Habitat QIs (Annex I Habitats):	Species QIs (Annex II Species):
Atlantic salt meadows	Atlantic Salmon
Dry heaths	Brook Lamprev
Estuaries	Desmoulin's whorl snail
Floating river vegetation	Freshwater Pearl Mussel
Hydrophilous tall herb	Irish Freshwater Pearl Mussel
Mediterranean salt meadows	Killarnev Fern
Old oak woodlands	Otter
Petrifying springs*	River Lamprev
Residual alluvial forests*	Sea Lamprev
Salicornia mud	Twaite Shad
Tidal mudflats	White-Clawed Crayfish

Site Name: Ireland's Eye SAC

Site Code: 002193

County (s):

SSCOs Published: No

Location: Within 5km of study area

Threats

The main threat to the island would be an increase in the numbers of visitors to the island. This could impact upon the more sensitive sandy habitats and cause disturbance to the breeding seabirds.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Perennial vegetation of stony banks

Sea cliffs

Site Name: The Murrough Wetlands SAC

Site Code: 002249

County (s): Wicklow

SSCOs Published: No

Location: Within study area

Threats

Drainage, building of an embankment, reclamation, levelling of sandhills and afforestation have already affected the habitats. Further works pose a threat to these. The water quality of inflowing streams may be reduced as a result of agricultural intensification outside of the site. Housing development is becoming a feature at the edge of the site. Access and recreational pressure is affecting the vegetation of the shingle shore, this will also cause disturbance to birds.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Alkaline fens

Atlantic salt meadows

Cladium fen*

Drift lines

Mediterranean salt meadows

Perennial vegetation of stony banks

Site Name: Ballyprior Grassland SAC

County (s): Laois

Threats

SSCOs Published: No

Location: Within 5km of study area

Site Code: 002256

Species QIs (Annex II Species):

Due to recent division of the lands between seven new owners, the site is vulnerable to habitat damage (clearance of scrub, surface rock, soil and vegetation disturbance) and subsequent improvement by harrowing, re-seeding and fertilising. Such efforts at 'improvement' are already occurring within and around the site. Adjacent grassland habitat has been lost also to afforestation in recent years, to the south. Appropriate grazing management is essential for conservation of this habitat; the site flora is therefore vulnerable to adverse changes in the grazing regime and also to encroachment by scrub and bracken.

Habitat QIs (Annex I Habitats):

Orchid-rich calcareous grassland*

Site Name: Wicklow Reef SAC

County (s): Wicklow

Threats

SSCOs Published: Yes

Location: Within 5km of study area

Site Code: 002274

Species QIs (Annex II Species):

This reef is vulnerable to any mechanical disturbance by pots and in particular fishing gear being dragged across the surface of the reef. If only a small part of the reef is disturbed, and this disturbance is not repeated with any frequency, the reef should be able to repair itself.

Habitat QIs (Annex I Habitats):

Reefs

Site Name: River Boyne and River Blackwater SAC

County (s): Cavan, Meath, Louth, Westmeath

Threats

SSCOs Published: No

Location: Within study area

Site Code: 002299

Species QIs (Annex II Species):

Main threats to the ecological interests of this site are further drainage schemes and water pollution. In the past, where drainage occurred it altered the character of the river and removed natural bankside structure and vegetation. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This can be extremely destructive to salmonid habitat. Drainage also impacts on the many small wetland areas throughout the site. Water quality is impaired in parts of the system through agricultural runoff and inputs from domestic and industrial sources. A reduction in the input of pollutants to the system is required to preserve the important aquatic interests in this site.

Habitat QIs (Annex I Habitats):

Alkaline fens
Residual alluvial forests*

Species QIs (Annex II Species):

Atlantic Salmon
Otter
River Lamprey

Site Name: Mouds Bog SAC

County (s): Kildare

Threats

SSCOs Published: No

Location: Within study area

Site Code: 002331

Species QIs (Annex II Species):

The main threat to the hydrology of this site is the extensive area of industrial cutting which is affecting the western part of the high bog. Peat-cutting for domestic purposes also still continues on a small scale. The ongoing removal of peat and the associated drainage if continued could threaten the long-term viability of the remaining high bog. The surface of the bog appears to be burned regularly and this is impairing the functioning of the acrotelm by damaging the peat-forming Sphagnum cover. Further burning would be damaging.

Habitat QIs (Annex I Habitats):

Degraded raised bogs
Raised bog (active)*
Rhyncosporion depressions

Site Name: Moneybeg and Clareisland Bogs SAC

Site Code: 002340

County (s): Meath, Westmeath

SSCOs Published: No

Location: Within 5km of study area

Threats

The main threats to the site are peat-cutting and associated activities such as drainage and burning. It must be noted however that the intensity of such damages appears to be relatively low at present in comparison to many other Irish raised bog sites. Agricultural reclamation and afforestation are potential threats to cutover areas of bog within the site. Burning events would damage the surface of the bogs.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Degraded raised bogs

Raised bog (active)*

Rhyncosporion depressions

Site Name: Ardagullion Bog SAC

Site Code: 002341

County (s): Longford

SSCOs Published: No

Location: Within 15km of study area

Threats

The site continues to be subject to threats to its hydrological integrity. The main threat is drying out of the surface due to forestry, however much of the forestry in the cutover margins of the site has been felled recently. Although active peat cutting occurs, the intensity is relatively low in comparison to other raised bog sites in Ireland. A large proportion of the site is in semistate ownership.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Degraded raised bogs

Raised bog (active)*

Rhyncosporion depressions

Site Name: Mount Hevey Bog SAC

Site Code: 002342

County (s): Meath, Westmeath

SSCOs Published: No

Location: Within study area

Threats

In the past this site was subject to extensive peat-cutting. More recently there has been afforestation in the south-eastern corner of the site. Both of these damaging operations have resulted in the drying-out of the high bog area. Unless peat-cutting is curtailed and the areas of forestry are removed, the site will continue to be vulnerable to drying out. Any intensification of these activities could be very damaging. The drier areas of the high bog surface are vulnerable to burning events which, if intense, can be very damaging.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Degraded raised bogs

Raised bog (active)*

Rhyncosporion depressions

Site Name: Rockabill to Dalkey Island SAC

Site Code: 003000

County (s): Dublin

SSCOs Published: Yes

Location: Within 5km of study area

Threats

Rockabill to Dalkey Island cSAC is designated for reefs and Harbour Porpoise. The resilience/recoverability of reefs is very low and even small levels of pressure, particularly from fishing, have the potential to affect ecological quality. Harbour Porpoise are vulnerable to a range of threats and pressures in their natural habitat, including accidental entanglement in fishing gear, competition for prey resources, pollution and other habitat degradation, and from disturbance from human activities.

Habitat QIs (Annex I Habitats):

Species QIs (Annex II Species):

Reefs

Reefs

Harbour Porpoise

Summary data relating to all relevant SPAs sorted according to site name

Site Name: North Bull Island SPA

Site Code: 004006

County (s): Dublin

SSCOs Published: Yes

Location: Within 5km of study area

Threats

Owing to the various conservation designations, there are no serious imminent threats to the wintering birds. However, due to its location in Dublin Bay, pollution such as oil spillages from Dublin Port and shipping is a general threat. Also, the intertidal areas receive polluted water though there are no apparent significant impacts on the associated flora and fauna. Commercial bait digging is a localised activity and causes disturbance to wintering birds. There is also some disturbance from walkers, free-running dogs, and sailing activities. There is high disturbance from amenity activities which is probably responsible for the abandonment of the site by *Sterna albifrons*.

SCIs (Annex I):

Bar-tailed Godwit

Golden Plover

Non-annex SCIs:

Black-headed Gull

Black-tailed Godwit

Curlew

Dunlin

Grey Plover

Knot

Light-bellied Brent Goose

Oystercatcher

Pintail

Redshank

Sanderling

Shelduck

Shoveler

Teal

Turnstone

Wetlands & Waterbirds

Site Name: Rockabill SPA

Site Code: 004014

County (s): Dublin

SSCOs Published: Yes

Location: Within 10km of study area

Threats

Since 1989 Rockabill has been manned continuously in each breeding season. This BirdWatch Ireland / National Parks & Wildlife project ensures that disturbance is kept to the minimum. Without such wardening, disturbance could be quite high from casual visitors landing on the Lighthouse island.

SCIs (Annex I):

Arctic Tern

Common Tern

Corncrake

Non-annex SCIs:

Purple Sandpiper

Site Name: Rogerstown Estuary SPA		Site Code: 004015	
County (s): Dublin		SSCOs Published: Yes	Location: Within study area
Threats			
A significant part of the estuary (intertidal flats and salt marsh) has been lost due to landfilling; while this remains a threat it is unlikely because of the site's various conservation designations. The landfill site is a major source of pollution to the estuary. Other sources of pollution include input of raw sewage from a local town and general pollution inputs from a rich agricultural hinterland. Erosion has removed much of the nesting area of <i>Sterna albifrons</i> . Illegal shooting causes disturbance to wintering waterfowl.			
SCIs (Annex I):		Non-annex SCIs:	
		Black-tailed Godwit	
		Dunlin	
		Grey Plover	
		Greylag Goose	
		Knot	
		Light-bellied Brent Goose	
		Oystercatcher	
		Redshank	
		Ringed Plover	
		Shelduck	
		Shoveler	
		Wetlands & Waterbirds	

Site Name: Baldoyle Bay SPA		Site Code: 004016	
County (s): Dublin		SSCOs Published: Yes	Location: Within study area
Threats			
The majority of the site is a Nature Reserve and is not threatened. The site receives pollution from a number of sources, chiefly the inflowing rivers and, until recently, an unsatisfactory sewage network. Bait digging and controlled wildfowling may be problems. <i>Spartina</i> is well established in the inner estuary and may be causing unfavourable interactions with the intertidal and salt marsh habitats. <i>Sterna albifrons</i> formerly nested but regular disturbance from walkers and dogs is a problem.			
SCIs (Annex I):		Non-annex SCIs:	
Bar-tailed Godwit		Grey Plover	
Golden Plover		Light-bellied Brent Goose	
		Ringed Plover	
		Shelduck	
		Wetlands & Waterbirds	

Site Name: South Dublin Bay and River Tolka Estuary SPA		Site Code: 004024	
County (s): Dublin		SSCOs Published: Yes	Location: Within study area
Threats			
The main threat to this site is further reclamation for industrial and/or infrastructural purposes. The intertidal areas receive water that is somewhat polluted though there are no apparent impacts on the associated flora and fauna. Owing to its location in Dublin Bay, pollution such as oil spillages from Dublin Port and shipping is a threat. Commercial bait digging may be a problem and can cause disturbance to wintering birds. Disturbance to birds is also caused by walkers and dogs.			
SCIs (Annex I):		Non-annex SCIs:	
Arctic Tern		Black-headed Gull	
Bar-tailed Godwit		Dunlin	
Common Tern		Grey Plover	
Roseate Tern		Knot	
		Light-bellied Brent Goose	
		Oystercatcher	
		Redshank	
		Ringed Plover	
		Sanderling	
		Wetlands & Waterbirds	

Site Name: Malahide Estuary SPA		Site Code: 004025	
County (s): Dublin		SSCOs Published: Yes	Location: Within study area
Threats			
The main problems or threats affecting this site are recreational activities, water pollution and infilling. Owing to the proximity of two large towns, the area is very popular for water sports and other amenity activities. These can cause disturbance to the bird populations - the intensity of such activities is likely to increase in the future. Pollution enters the system from the Broadmeadow River and from sewage plants at Swords and Malahide, and the inner estuary is particularly affected owing to its lagoonal character. The efficiency of the sewage plants may be upgraded in the future. Parts of the estuary have been infilled in the past for various developments, including housing and walk-ways, and this remains a threat.			
SCIs (Annex I):		Non-annex SCIs:	
Bar-tailed Godwit		Black-tailed Godwit	
Golden Plover		Dunlin	
		Goldeneye	
		Great Crested Grebe	
		Grey Plover	
		Knot	
		Light-bellied Brent Goose	
		Oystercatcher	
		Pintail	
		Red-breasted Merganser	
		Redshank	
		Shelduck	
		Wetlands & Waterbirds	

Site Name: Dundalk Bay SPA

Site Code: 004026

County (s): Louth

SSCOs Published: Yes

Location: Within 15km of study area

Threats

The intertidal areas receive polluted water though there are no apparent significant impacts on the associated flora and fauna. Oil pollution from Dundalk Port is a general threat. Localised infilling and dumping has occurred in the past, especially near Dundalk town, and this remains a threat to the shoreline habitats. Aquaculture may occur in the future as a feasibility study has been carried out. This activity would need to be controlled to avoid significant disturbance to habitats and bird populations. There is some disturbance from walkers, free-running dogs, sailing activities and bait-digging. Spartina is well established and may threaten the estuarine habitats.

SCIs (Annex I):

- Bar-tailed Godwit
- Golden Plover

Non-annex SCIs:

- Black-headed Gull
- Black-tailed Godwit
- Common Gull
- Common Scoter
- Curlew
- Dunlin
- Great Crested Grebe
- Grey Plover
- Grevlaq Goose
- Herring Gull
- Knot
- Lapwing
- Light-bellied Brent Goose
- Mallard
- Oystercatcher
- Pintail
- Red-breasted Merganser
- Redshank
- Ringed Plover
- Shelduck
- Teal
- Wetlands & Waterbirds

Site Name: Wicklow Mountains SPA

Site Code: 004040

County (s): Wicklow

SSCOs Published: No

Location: Within study area

Threats

As the site is largely State-owned and within a National Park, there are no significant threats to the bird populations. Some of the peatland habitats are affected by overgrazing by sheep, whilst both deer and sheep reduce regeneration within the woodlands. Localised peat extraction and burning is a threat to the blanket bog and heath habitats. Many recreational activities occur within the site and some, such as hill walking and climbing, could have potential for disturbance to habitats and species if not properly controlled.

SCIs (Annex I):

- Merlin
- Peregrine

Non-annex SCIs:

Site Name:	Lough Derravaragh SPA	Site Code:	004043
County (s):	Westmeath	SSCOs Published:	No
Location:	Within 10km of study area		
Threats	Lough Derravaragh is classified as a mesotrophic system, with increased planktonic algal growth recorded in 2000. Enrichment of the lake, mainly by agricultural run-off, is a threat and could affect the bird populations and especially the diving duck. An increase in recreational and wildfowling activities could cause disturbance to the birds though this is not considered to be a major threat.		
SCIs (Annex I):	Non-annex SCIs:		
Whooper Swan	Coot		
	Pochard		
	Tufted Duck		
	Wetlands & Waterbirds		

Site Name:	Lough Ennell SPA	Site Code:	004044
County (s):	Westmeath	SSCOs Published:	No
Location:	Within 15km of study area		
Threats	Lough Ennell is very vulnerable to pollution from agricultural and domestic sources though water quality has been satisfactory in recent years. A deterioration in water quality could affect bird populations (as shown by marked fluctuations in some populations in the past). Lough Ennell is an important amenity area, much used for fishing, boating and camping. Sections of the shoreline are managed for visitor access and amenity. Increases in such recreational activities could cause disturbance to the birds.		
SCIs (Annex I):	Non-annex SCIs:		
	Coot		
	Pochard		
	Tufted Duck		
	Wetlands & Waterbirds		

Site Name:	Lough Kinale & Derragh Lough SPA	Site Code:	004061
County (s):	Cavan, Longford, Westmeath	SSCOs Published:	No
Location:	Within 5km of study area		
Threats	The variable water quality over the years, with periods of highly eutrophic conditions, undoubtedly has had some adverse impacts on the wintering waterfowl and especially the diving duck. This would appear to be borne out by very variable numbers of birds recorded over the years. The lake is still vulnerable to pollution and it is considered there is urgent need to reduce the phosphorus inputs to the system. Afforestation has taken place close to parts of the shoreline and further planting would be undesirable. Angling and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern.		
SCIs (Annex I):	Non-annex SCIs:		
	Pochard		
	Tufted Duck		
	Wetlands & Waterbirds		

Site Name:	Poulaphouca Reservoir SPA	Site Code:	004063
County (s):	Kildare, Wicklow	SSCOs Published:	No
Location:	Within study area		
Threats	Generally, there are no significant threats to the wintering bird populations. Recreational use of the reservoir for boating activities causes some disturbance to the birds and any increase in such activities could be of concern.		
SCIs (Annex I):	Non-annex SCIs:		
	Grevlaq Goose		
	Lesser Black-backed Gull		

Site Name: Lough Sheelin SPA		Site Code: 004065	
County (s): Cavan, Meath, Westmeath		SSCOs Published: No	Location: Within study area
Threats			
The variable water quality over the years, with periods of highly eutrophic conditions, undoubtedly has had some adverse impacts on the wintering waterfowl, and especially the diving duck. This would appear to be borne out by very variable numbers over the years. The lake is still considered to be vulnerable to pollution and there is a need to reduce the phosphorus inputs to the feeder streams entering the lake. Recreational and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern.			
SCIs (Annex I):		Non-annex SCIs:	
		Goldeneve	
		Great Crested Grebe	
		Pochard	
		Tufted Duck	
		Wetlands & Waterbirds	

Site Name: Lambay Island SPA		Site Code: 004069	
County (s): Dublin		SSCOs Published: No	Location: Within 5km of study area
Threats			
Lambay has essentially been maintained as a wildlife sanctuary by its owners since the early 20th century. As access is strictly controlled, there is very little disturbance to the breeding or wintering birds. The present landuse is conducive for wintering geese. The presence of rats (both Rattus norvegicus and R. rattus) may be having detrimental effects on burrowing seabirds. Over-fishing in the surrounding seas could affect the food supplies of some of the seabirds. As Lambay is close to major shipping lanes, oil pollution is always a threat.			
SCIs (Annex I):		Non-annex SCIs:	
		Cormorant	
		Fulmar	
		Grevlaa Goose	
		Guillemot	
		Herring Gull	
		Kittiwake	
		Lesser Black-backed Gull	
		Puffin	
		Razorbill	
		Shag	

Site Name:	Boyne Estuary SPA	Site Code:	004080
County (s):	Louth, Meath	SSCOs Published:	Yes
Location:	Within study area		
Threats	Parts of the intertidal sand and mud flats and the salt marsh habitats have been infilled in the past and this remains a threat. Pollution enters the estuary from Drogheda town, though a sewage treatment works under construction will improve this situation. Planned port extension could affect bird populations. Nowadays there are no significant shooting pressures as the site is a Wildfowl Sanctuary		
SCIs (Annex I):	Non-annex SCIs:		
Golden Plover	Black-tailed Godwit		
Little Tern	Grey Plover		
	Knot		
	Lapwing		
	Oystercatcher		
	Redshank		
	Sanderling		
	Shelduck		
	Turnstone		
	Wetlands & Waterbirds		

Site Name:	Stabannan - Braganstown SPA	Site Code:	004091
County (s):	Louth	SSCOs Published:	No
Location:	Within 10km of study area		
Threats	While the site is privately owned and actively farmed, there are no threats as there is a management agreement in place to benefit the waterfowl. In the longterm, possible changes in agricultural practices could be detrimental to the wintering birds.		
SCIs (Annex I):	Non-annex SCIs:		
	Greylag Goose		

Site Name:	Garriskil Bog SPA	Site Code:	004102
County (s):	Westmeath	SSCOs Published:	No
Location:	Within 10km of study area		
Threats	There is little active peat cutting taking place at this site and recent information suggests that fire damage has been slight recently. The apparent abandonment of the site by wintering Anser albifrons flavirostris reflects a general move away from raised bogs and is not considered to be due to conditions at the site.		
SCIs (Annex I):	Non-annex SCIs:		
Greenland White-fronted Goose			

Site Name:	Howth Head Coast SPA	Site Code:	004113
County (s):	Dublin	SSCOs Published:	No
Location:	Within 5km of study area		
Threats	Despite the high numbers of casual visitors to the site, there does not appear to be any significant disturbance to the seabird colonies (some of which are on inaccessible cliff faces). Over-fishing in local waters could put pressure on food supplies for the birds.		
SCIs (Annex I):	Non-annex SCIs:		
	Kittiwake		

Site Name: Ireland's Eye SPA	Site Code: 004117
County (s): Dublin	SSCOs Published: No
Threats	Location: Within 5km of study area
Ireland's Eye is a popular site for day trippers though at present there does not seem to be any adverse impacts on the 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 populations of rats could be detrimental to the growth of the Fratercula arctica colony. Nesting Falco peregrinus are disturbed in some years.	
SCIs (Annex I):	Non-annex SCIs:
	Cormorant
	Guillemot
	Herring Gull
	Kittiwake
	Razorbill

Site Name: Skerries Islands SPA	Site Code: 004122
County (s): Dublin	SSCOs Published: No
Threats	Location: Within 5km of study area
The islands, especially Shenick's, are visited regularly in summer and some disturbance may be caused to the breeding birds.	
SCIs (Annex I):	Non-annex SCIs:
	Cormorant
	Herring Gull
	Light-bellied Brent Goose
	Purple Sandpiper
	Shag
	Turnstone

Site Name: Wicklow Head SPA	Site Code: 004127
County (s): Wicklow	SSCOs Published: No
Threats	Location: Within study area
There are no known significant threats to the seabird colony at present. Casual visitors to the site could cause disturbance though most of the seabirds are on an inaccessible cliff face. Over-fishing in local waters could put pressure on food supplies for the birds. Interference is caused to the nesting peregrines in some years.	
SCIs (Annex I):	Non-annex SCIs:
	Kittiwake

Site Name: Wicklow Head SPA	Site Code: 004127
County (s): Wicklow	SSCOs Published: No
Threats	Location: Within study area
There are no known significant threats to the seabird colony at present. Casual visitors to the site could cause disturbance though most of the seabirds are on an inaccessible cliff face. Over-fishing in local waters could put pressure on food supplies for the birds. Interference is caused to the nesting peregrines in some years.	
SCIs (Annex I):	Non-annex SCIs:
	Kittiwake

