HDA Screening Report
BACKGROUND DOCUMENT

Greater Dublin Area
Draft Transport Strategy 2011-2030
2030 vision

Údarás Náisiúnta Iompair
National Transport Authority

2030 VISION: GREATER DUBLIN AREA TRANSPORT STRATEGY

Habitats Directive Assessment (HDA) Screening Report

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TABLE OF CONTENTS

1. INTRODUCTION 1
1.1 INTRODUCTION TO HABITATS DIRECTIVE ASSESSMENT 1
1.2 STAGES OF THE HDA PROCESS 2
1.3 SCREENING METHODOLOGY 3

2. DESCRIPTION OF THE PLAN 5

3. DESCRIPTION OF NATURA 2000 SITES 7

4. ELEMENTS OF THE PLAN LIKELY TO AFFECT NATURA 2000 SITES 22
4.1 DIRECT IMPACTS 22
4.2 INDIRECT IMPACTS 24
4.3 NATURA 2000 SITES WHERE IMPACTS ARE NOT ANTICIPATED 32

5. SCREENING CONCLUSIONS 34

LIST OF FIGURES

FIGURE 1: SPECIAL AREAS OF CONSERVATION IN THE ZONE OF INFLUENCE OF THE VISION 2030 GREATER DUBLIN AREA TRANSPORT STRATEGY

FIGURE 2: SPECIAL PROTECTION AREAS IN THE ZONE OF INFLUENCE OF THE VISION 2030 GREATER DUBLIN AREA TRANSPORT STRATEGY

FIGURE 3: NATURA 2000 SITES 'SCREENED-IN' TO STAGE 2 OF THE ASSESSMENT

FIGURE 4: NATURA 2000 SITES 'SCREENED-OUT' OF STAGE 2 OF THE ASSESSMENT

2030 VISION: GRETER DUBLIN AREA TRANSPORT STRATEGY

HDA SCREENING REPORT

1. INTRODUCTION

1.1 Introduction to Habitats Directive Assessment

The requirement for Habitats Directive Assessment (HDA) (also known as 'Appropriate Assessment') of plans or projects originates from Article 6 (3) and (4) of *European Union (EU) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, commonly known as the 'Habitats Directive', which is implemented in Ireland through the European Communities (Natural Habitats) Regulations of 1997. The wording of Article 6 (3) of the Directive is as follows:-

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

The wording of Article 6 (4) of the Directive is as follows:-

> '*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted*.'

Appropriate Assessment Guidelines for Planning Authorities were published by the Department of the Environment Heritage and Local Government in December 2009 (DoEHGL, 2009). These Guidelines have been followed, where relevant, in this assessment. The HDA process in the Republic of Ireland should be conducted in full consultation with the National Parks and Wildlife Service. This report will be submitted to relevant staff within NPWS and will form the basis of discussions on the approach to further stages of the HDA process. The EU has published a number of documents which provide guidance on the requirements of Appropriate Assessment, including, *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*, (EC, 2002), which sets out the principles of how to approach decision making during the process and this have been followed as closely as possible.

1.2 Stages of the HDA Process

If necessary, the Appropriate Assessment process progresses through four stages. If at any stage in the process it is determined that there will be no significant effect on any Natura 2000 site, the process is effectively completed. The four stages are as follows:-

- Stage 1 – Screening of the Proposed Works;
- Stage 2 – Appropriate Assessment of the Proposed Works;
- Stage 3 – Assessment of alternative solutions; and
- Stage 4 – Assessment of compensatory measures.

Stages 1 and 2 relate to Article 6(3) of the Habitats Directive; and Stages 3 and 4 to Article 6(4).

Stage 1: Screening

The aim of Stage 1, 'Screening' is to determine whether or not Stage 2, the Appropriate Assessment is required, i.e. to determine whether or not the Plan is likely to negatively affect the conservation objectives on any Natura 2000 site. This is done by examining the design of the proposed project; and the conservation objectives of any Natura 2000 sites that might potentially be affected.

Stage 2: Appropriate Assessment

The aim of Stage 2, the 'Appropriate Assessment' proper, is to identify any significant negative impacts that the project might have upon Natura 2000 sites and to propose changes to the project design that will avoid any such negative impacts. The project design should then be amended accordingly, thereby avoiding the need to progress to Stage 3, which would require the implementation of measures to mitigate or compensate for the identified negative impacts on Natura 2000 sites.

A key consideration of Appropriate Assessment is that the Plan or Project under consideration must take account of potential impacts on Natura 2000 sites 'in combination' with other plans or projects. Such Impacts are termed 'Cumulative Impacts and are discussed in Sections 4.2.3 and 4.3.3.

It is an objective of the HDA process to avoid the need to progress to Stage 3, which can be achieved by implementing the avoidance and mitigation measures determined during Stage 2.

Stage 3: Assessment of Alternative Solutions

If it is not possible during the Stage 2 assessment to reduce impacts to acceptable, non-significant levels by avoidance and mitigation, Stage 3 of the HDA process must be undertaken, which is to objectively assess whether alternative solutions exist by which the objectives of the plan or project can be achieved. Explicitly, this means alternative solutions that do not have negative impacts on the conservation objectives of the Natura 2000 site.

This stage of the HDA process involves identifying the key objectives of the plan or project, identifying alternative solutions to achieving those objectives and then assessing each alternative against the criteria used in Stage 2 of the HDA. Clearly this involves a great deal of work on the part of both the practitioner and the proponent of the plan or project.

Fundamentally, there are two pre-conditions that must be met before the Competent Authority (DoEHLG) can allow a development that negatively impacts upon the conservation objectives of a Natura 2000 site, and it is at this stage of the HDA process that the first of these is determined: that 'no alternatives exist' (the second precondition relates to 'over-riding public interest' and 'human health and safety considerations' and is determined in Stage 4). It should also be noted that EU guidance on this stage of the process states that, 'other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria' (EC, 2002). In other words, if alternative solutions exist that do not have negative impacts on Natura 2000 sites; they should be adopted regardless of economic considerations.

Stage 4: Assessment Where no Alternative Exists and Where Adverse Impacts Remain

As stated above, this Stage of the HDA process is undertaken when it has been determined that negative impacts on the conservation objectives of a site will result from a plan or project, but that no alternatives exist. At this Stage of the HDA process, it is the characteristics of the plan or project itself that will determine whether or not the Competent Authority can allow it to progress. This is the determination of 'over-riding public interest'.

It is important to note that in the case of Natura 2000 sites that include in their Qualifying Features 'Priority' habitats or species, as defined in Appendices 1 and 2 of the Directive, the demonstration of 'over-riding public interest' is not sufficient, and it must be demonstrated that the plan or project is necessary for 'human health or safety considerations'.

Where plans or projects meet these criteria, they can be allowed, provided adequate compensatory measures are proposed. Stage 4 of the process defines and describes these compensation measures.

1.3 Screening Methodology

The general approach to the screening assessment in order to determine whether or not particular Natura 2000 sites require further, Stage 2 Appropriate Assessment, involved a number of key stages described below.

The strategic plan currently comprises a series of mapping and text documents. This Screening assessment is based upon examination of these and in particular of a spreadsheet detailing all of the proposals that currently make up the strategy alternatives. Appendix A of this spreadsheet, entitled: Infrastructure Schemes – High Level Assessment for Inclusion in Strategy Packages, was examined and an additional column detailing all potential impacts on Natura 2000 were inserted, based upon examination of GIS-generated mapping (see below). This spreadsheet was then interrogated to construct the tables presented in Section 4 of this report.

In addition to examining Appendix A and associated mapping, the study team, as part of the Screening Determination also examined and assessed:-

- Appendix B: Specification of policy or best practice measures for appraisal purposes (scheme implementation assumptions will generally be required for appraisal purposes);

- Appendix C: Specification of policy or best practice measures for appraisal purposes (scheme implementation assumptions not required for appraisal purposes); and

- Appendix D: Landuse Planning Policies or Best Practice.

The various polices/measures outlined in these appendices are not site specific and therefore cannot in themselves determine whether or not Natura 2000 sites require further Stage 2 Assessment. Such polices will however be addressed at Stage 2 Appropriate Assessment to ensure the overall objectives of the Strategy does not pose negative impacts to Natura 2000 sites as a whole i.e. for example where there maybe a policy to implement an additional Plan.

The HDA Screening process that has been conducted can therefore be summarised as follows:-

- Examination of the key elements of the strategy and its potential impacts on Natura 2000 sites.

- Examination of the Natura 2000 sites including details of the Qualifying Features such as Habitats Directive Annex I habitats and Annex II species; and Birds Directive, Annex I Bird Species.

- Production of a spatial overlay of the Strategy alternatives against Natura 2000 sites (cSACs, SPAs); and also rivers and other possible ‘pathways’ for indirect impacts; and other features, to determine if such proposals are likely to affect any Natura 2000 site.

- Determination of the proposals/measures likely to have a direct effect on Natura 2000 sites through the GIS mapping exercise described above. Where there is a direct spatial overlap between a Natura 2000 site and a proposal, e.g. a proposed road crossing a designated river. All sites likely to be directly impacted were ‘screened-in’ for Stage 2 assessment. See Table 4.1 and Table 4.3.

- An assessment of the likelihood of indirect impacts on Natura 2000 sites. Those where impacts were considered possible were also screened-in, for example downstream effects from a river or disturbance from a nearby construction project.

2. DESCRIPTION OF THE PLAN

The National Transport Authority is currently preparing a new Transport Strategy for the Greater Dublin Area (Dublin, Kildare, Meath and Wicklow) which will set out the transport infrastructure requirements and the transport policy for the region for the period 2010 – 2030. The NTA have indicated that the new 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 Strategy will be inextricably linked to sustainable land use planning and will be directed by the economic, social, cultural and environmental needs of the residents, workers and visitors to the Greater Dublin Area.

The purpose of this project is to formulate a transport strategy for the Greater Dublin Area for a target year of 2030 and look beyond this to 2050 to examine the robustness of the emerging strategy. The NTA will do this by learning lessons from the recent past, analysing current patterns, trends and issues and anticipating future changes and their impact on the quality of life of people living in the GDA. 2030 Vision will be a successor to the current strategy 'A Platform for Change', published in 2001.

As part of the Strategy the NTA will address means of reducing environmental emissions and will take into account the 'National Climate Change Strategy' and 'Smarter Travel: A Transport Policy for Ireland'.

The transport strategy is based on the following overall vision:-

> *"Our Vision for Dublin in 2030 is for a competitive, sustainable city region with a good quality of life for all."*

From this vision, the following high level objectives and associated Sub-objectives emerged. These are summarised in Table 2.1.

A set of high level transport and planning measures were appraised against these objectives, e.g. "More Light Rail Lines". Once this was complete a number of infrastructural and policy proposals were developed under the high level measures, e.g. "Luas from Tallaght to Dundrum". Three alternative packages containing the infrastructural schemes were then created and are being appraised by the Strategy team and by the Strategic Environmental Assessment team. For the purposes of this HDA Screening stage, *all* potential infrastructure proposals from each of the three packages have been examined together as described in Section 1.3.

Table 2.1: High Level Objectives and Sub-objectives of the Strategy

High-Level Objective	Sub-Objective
Objective 1 - Build and Strengthen Communities	Improve accessibility to work, education, retail, leisure and other activities. Improve access for disadvantaged people (including physical access for mobility impaired people). Improve links between communities within the region. Improve links to the rest of the island of Ireland.
Objective 2 - Improve Economic Competitiveness	Improve journey time reliability for business travel and the movement of goods. Reduce overall journey times for business travel and the movement of goods. Ensure value for money of transport expenditure. Support business agglomeration and competition. Improve access to GDA ports and Dublin airport. provide for efficient goods distribution, servicing and access to materials.
Objective 3 - Improve the Built Environment	Improve and maintain the environment for people movement (e.g., better quality design of streets and open spaces). Improve the quality of design and maintenance of transport infrastructure and vehicles. Minimise physical intrusion of motor traffic.
Objective Natural Environment 4 - Respect and Sustain the	Minimise the impact of transport on air quality Minimise the impact of transport on water quality. Reduce greenhouse gases associated with transport. Improve efficiency in the use of natural resources, especially non-renewable ones (e.g., land, materials, fuels). Minimise the impact of noise and vibration. Minimise adverse impact of transport on biodiversity and natural amenities.
Objective 5 - Reduce Personal Stress	Improve journey time reliability for personal travel. Reduce overall journey times for personal travel. Improve travel information. Improve ease of use of public transport system. Promote healthier forms of travel and use of public space. Improve travel safety. Improve travel comfort and the sense of personal security.

3. DESCRIPTION OF NATURA 2000 SITES

Clearly 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, and it will generally, but not necessarily, be the case that the greater the distance the lower the possibility of impacts. The *Guidelines for Planning Authorities* (DoEHLG, 2009) state that the Screening should include the following Natura 2000 sites:-

1. Any Natura 2000 sites within or adjacent to the plan or project area.

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

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

Table 3.1 (cSACs) and Table 3.2 (SPAs) present details of all sites located within 15km of any proposal listed in Appendix A of the strategy. The possibility of impacts beyond 15km was considered, and it was deemed unlikely that any of the projects included would have impacts over distances greater than 15km.

The qualifying features for each site have been obtained through a review of the NPWS Site Synopses for the sites. The threats and conservation objectives have been obtained from work currently underway as part of the Water Framework Directive.

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000391	Ballynafagh Bog	7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
		7150	Depressions on peat substrates of the Rhynchosporion		
001387	Ballynafagh Lake	7230	Alkaline fens	1016	*Vertigo moulinsiana*
		7140	Transition mires and quaking bogs	1065	*Euphydryas aurinia*
000713	Ballyman Glen	7230	Alkaline fens		
		7220	Petrifying springs with tufa formation (Cratoneurion)		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000199	Baldoyle Bay	1140	Mudflats and sandflats not covered by seawater at low tide		
		1310	Salicornia and other annuals colonizing mud and sand		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		1320	Spartina swards (Spartinion maritimae)		
00714	Bray Head	1230	Vegetated sea cliffs of the Atlantic and Baltic coasts		
		4030	European dry heaths		
		6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)		
000729	Buckroney-Brittas Dunes and Fen	2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		1210	Annual vegetation of drift lines		
		2110	Embryonic shifting dunes		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)		
		2190	Humid dune slacks		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		1220	Perennial vegetation of stony banks		
		7230	Alkaline fens		
		2170	Dunes with Salix repens ssp.argentea (Salix arenariae)		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
002256	Ballyprior Grasslands	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)		
001957	Boyne Coast and Estuary	2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2110	Embryonic shifting dunes		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		1130	Estuaries		
		1140	Mudflats and sandflats not covered by seawater at low tide		
		1310	Salicornia and other annuals colonizing mud and sand		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		1320	Spartina swards (Spartinion maritimae)		
001459	Clogher Head	1130	Vegetated sea cliffs of the Atlantic and Baltic coasts		
		4030	European Dry Heath		
000716	Carriggower Bog	7140	Transition mires and quaking bogs		
000455	Dundalk Bay	1130	Estuaries		
		1140	Mudflats and sandflats not covered at low tide		
		1220	Perennial vegetation of stony banks		
		1310	Salicornia and other annuals colonizing mud and sand		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000717	Deputy's Pass Nature Reserve	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles		
000719	Glen of the Downs	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles		
001209	Glenasmole Valley	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)		
		6410	Molinia meadows on calcareous, peaty or clavey-silt-laden soils (Molinion caeruleae)		
		7220	Petrifying springs with tufa formation (Cratoneurion)		
000202	Howth Head	1230	Vegetated sea cliffs of the Atlantic and Baltic coasts		
		4030	European dry heaths		
001757	Holdens-town Bog	7140	Transition mires and quaking bogs		
		7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
002193	Ireland's Eye	1220	Perennial vegetation of stony banks		
		1230	Vegetated sea cliffs of the Atlantic and Baltic coasts		
000006	Killyconny Bog (Cloghbally)	7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
001742	Kilpatrick Sandhills	1210	Annual vegetation of drift lines		
		2110	Embryonic shifting dunes		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000204	Lambay Island	1230	Vegetated sea cliffs of the Atlantic and Baltic coasts	1364	*Halichoerus grypus*
002120	Lough Bane and Lough Glass	3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.		
002340	Moneybog and Clareisland Bog	7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
		7150	Depressions on peat substrates of the Rhynchosporion		
002331	Mouds Bog	7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
		7150	Depressions on peat substrates of the Rhynchosporion		
000205	Malahide Estuary	2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		1140	Mudflats and sandflats not covered at low tide		
		1310	Salicornia and other annuals colonizing mud and sand		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		1320	Spartina swards (Spartinion maritimae)		
002342	Mount Hevey Bog	7110	Active raised bogs		
		7120	Degraded raised bogs still capable of natural regeneration		
		7150	Depressions on peat substrates of the Rhynchosporion		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
001766	Magherabeg Dunes	1210	Annual vegetation of drift lines		
		2110	Embryonic shifting dunes		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)		
		7220	Petrifying springs with tufa formation (Cratoneurion)		
000206	North Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide	1395	*Petalophyllum ralfsii*
		1310	Salicornia and other annuals colonizing mud and sand		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		1210	Annual vegetation of drift lines		
		2110	Embryonic shifting dunes		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2190	Humid dune slacks		
		1320	Spartina swards (Spartinion maritimae)		
000396	Pollards-town Fen	7210	Calcareous Fens with Cladium mariscus and species of the Caricion davalliane	1016	*Vertigo moulinsiana*
		7220	Petrifying springs with tufa formation	1013	*Vertigo geyeri*
		7230	Alkaline fens	10114	*Vertigo anguistor*

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
00397	Red Bog	7140	Transition mires and quaking bogs		
		3150	Natural euthrophic lakes with Magnopotamion or hydrocharition type vegetation		
		7110	Active raised bog		
000208	Rogerstown Estuary	1130	Estuaries		
		1140	Mudflats and sandflats not covered by seawater at low tide		
		1310	Salicornia and other annuals colonizing mud and sand		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2120	Shifting dunes along the shoreline with Ammophila arenaria (white dunes)		
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1320	Spartina swards (Spartinion maritimae)		
002299	River Boyne and River Blackwater	7230	Alkaline fens	1106	*Salmo salar*
		91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	1099	*Lampetra fluviatilis*
				1355	*Lutra lutra*
0001398	Rye Water / Carton	7220	Petrifying springs with tufa formation (Cratoneurion)	1014	*Vertigo angustior*
				1016	*Vertigo moulinsiana*

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
002162	River Barrow and River Nore	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles	1095	*Petromyzon marinus*
		91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae,	1096	*Lampetra planeri*
		3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	1099	*Lampetra fluviatilis*
		1310	Salicornia and other annuals colonizing mud and sand	1103	*Alosa fallax*
		1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	1106	*Salmo salar*
		1410	Mediterranean salt meadows (Juncetalia maritimi)	1102	*Alosa alosa*
		4030	European dry heaths	1135	*Lutra lutra*
		7220	Petrifying springs with tufa formation (Cratoneurion)	1092	*Austropotamobius pallipes*
		6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	1029	*Margaritifera margaritifera*
		1320	Spartina swards (Spartinion maritimae)	1990	*Margaritifera durrovensis*
		1140	Mudflats and sandflats not covered by seawater at low tide	1016	*Vertigo moulinsiana*
		1130	Estuaries	1421	*Trichomanes speciosum*
000210	South Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000781	Slaney River Valley	1130	Estuaries	1103	*Alosa fallax*
		1140	Mudflats and sandflats not covered by seawater at low tide	1099	*Lampetra fluviatilis*
		3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	1096	*Lampetra planeri*
		91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	1095	*Petromyzon marinus*
		91A0	Old Sessile oak woods with Ilex and Blechnum in British isles	1102	*Alosa alosa*
				1106	*Salmo salar*
				1355	*Lutra lutra*
002249	The Murrough Wetlands	1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
		1210	Annual vegetation of drift lines		
		1220	Perennial vegetation of stony banks		
		7230	Alkaline fens		
		1410	Mediterranean salt meadows (Juncetalia maritimi)		
		7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae		
000925	The Long Derries, Edenderry	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites		
000733	Vale of Clara (Rathdrum Wood)	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles		

Table 3.1: cSACs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
002122	Wicklow Mountains	7130	Blanket bog (*active only)	1355	*Lutra lutra*
		4010	Northern Atlantic wet heaths with Erica tetralix		
		4030	European dry heaths		
		91A0	Old sessile oak woods with Ilex and Blechnum in British Isles		
		8220	Siliceous rocky slopes with chasmophytic vegetation		
		8210	Calcareous rocky slopes with chasmophytic vegetation		
		8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)		
		4060	Alpine and Boreal heaths		
		3160	Natural dystrophic lakes and ponds		
		3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea		
		6230	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)		
002274	Wicklow Reef	1170	Reefs		
001810	White Lough, Ben Loughs and Lough Doo	3140	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	1092	*Austropotamobius pallipes*

Table 3.2: SPAs Located Within 15km of any Vision 2030 Proposal

Site Code	Site Name	Annex I Species	Other Features	Non Annex I Species	Summary of Interest
004016	Baldoyle Bay	Golden Plover, Bar-tailed Godwit	Wintering Waterfowl and Waders	Brent Goose	Baldoyle Bay SPA is of high conservation importance, with an internationally important population of Brent Geese and nationally important populations of a further seven species, including two which are listed on Annex I of the E.U. Birds Directive. The inner estuarine section is a Statutory Nature Reserve and is also designated as a wetland of international importance under the Ramsar Convention
004128	Broad Lough	Little Egret	Wintering Waterfowl and Waders	Greylag Goose, Reed Warbler	Broad Lough SPA is a regionally important site for wintering waterfowl and was formerly a favoured haunt for a nationally important Greylag Goose population. The occurrence of Little Egret is of note as this species is listed on Annex I of the E.U. Birds Directive. The site also supports a typical diversity of birds associated with reed swamp, including Reed Warbler, a very localised species in Ireland
004080	Boyne Estuary	Golden Plover, Bar-tailed Godwit	Wintering Waterfowl and Waders		The site is of considerable ornithological importance for wintering waterfowl, with ten species having populations of national importance. Little Tern has bred in the recent past and could do so again in the future. Of particular significance is that two of the wintering species, Golden Plover and Bar-tailed Godwit are listed on Annex I of the E.U. Birds Directive. Little Tern, which last bred successfully at the site in 1996, is also listed on Annex I of this directive.

Table 3.2: SPAs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Annex I Species	Other Features	Non Annex I Species	Summary of Interest
004025	Broad-meadows/ Swords Estuary	Golden Plover, Bar-tailed Godwit and Ruff	Wintering Waterfowl and Waders	Brent Goose	Broadmeadow/Swords Estuary SPA is a fine example of an estuarine system, providing both feeding and roosting areas for a range of wintering waterfowl. The lagoonal nature of the inner estuary is of particular value as it increases the diversity of birds which occur. The site is of high conservation importance, with an internationally important population of Brent Goose and nationally important populations of a further 12 species.
004026	Dundalk Bay	Golden Plover, Bar-tailed Godwit, Red-throated and Great Northern Divers	Wintering Waterfowl and Waders		This site is one of the most important wintering waterfowl sites in the country and oneof the few which regularly supports more than 20,000 waterfowl. It supports three species in numbers of International Importance and a further 15 species in numbers of National Importance. The populations of Golden Plover, Bar-tailed Godwit, Red throated and Great Northern Divers are of particular note as these species are listed on Annex I of the EU Birds Directive. The site is also a designated Ramsar site. The site is monitored annually as part of IWeBS.
004113	Howth Head Coast	Peregrine	Breeding Sea Birds		This site is of high ornithological importance, with four seabird species having populations of national importance. It is also a traditional nesting site for Peregrine Falcon.

Table 3.2: SPAs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Annex I Species	Other Features	Non Annex I Species	Summary of Interest
004085	Kilcoole Marshes	Little Tern, Whooper Swan, Golden Plover	Wintering Waterfowl and Waders	Brent Goose, Greylag Goose and Wigeon	The Kilcoole Marshes SPA is an important site for wintering waterfowl, being internationally important for Brent Goose and nationally important for Greylag Goose and Wigeon. It is probably the most important site in the country for nesting Little Tern. The regular occurrence of Whooper Swan, Golden Plover and Little Tern is of note as these species are listed on Annex I of the E.U. Birds Directive. The site is well-monitored and is a focal point for conservation projects and research
004117	Irelands Eye	Peregrine	Breeding Sea Birds and other breeding birds		This relatively small island is of high ornithological importance, with seven seabird species having populations of national importance. The regular presence of a breeding pair of Peregrine Falcon is also of note.
004069	Lambay Island	Peregrine	Breeding Seabirds	Greylag Goose	Lambay is an internationally important seabird colony and one of the top seabird sites in Ireland. Four species have populations of international importance and a further five have populations of national importance. In addition to the seabirds, it also supports a nationally important population of Greylag Goose. The site is also of conservation for the population of Grey Seal, a species that is listed on Annex II of the E.U. Habitats Directive.
004006	North Bull Island	Golden Plover, Bar-tailed Godwit, Ruff, Short-eared owl	Wintering Waterfowl and Waders	Brent Goose, Black tailed Godwit	The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black tailed Godwit and Bar-tailed Godwit that use it.

Table 3.2: SPAs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Annex I Species	Other Features	Non Annex I Species	Summary of Interest
004063	Poula-phouca Reservoir	Whooper Swan	Wintering Waterfowl and Waders	Greylag Goose	The principal interest of the site is the Greylag Goose population, which is of international importance. A range of other wildfowl species also occurs, including Whooper Swan, a species that is listed on Annex I of the E.U. Birds Directive. The site is also notable as a winter roost for gulls, especially Lesser Black-backed Gull
004014	Rockbill	Roseate Tern, Common Tern, Arctic Tern	Breeding Seabirds		Internationally Important tern colony.
004015	Rogers-town Estuary	Golden Plover, Ruff	Wintering Waterfowl and Waders	Brent Goose	Rogerstown Estuary is an important link in the chain of estuaries on the east coast. It supports an internationally important population of Brent Goose and a further 14 species in numbers of national importance.
004158	River Nanny Estuary and Shore	Golden Plover and Bar-tailed Godwit	Wintering Waterfowl and Waders		This site is of ornithological importance as it supports five species of wintering waterbirds in numbers of national significance. Two species using the site, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive.
004091	Stabannan /Bragans-town	Greenland White-fronted Goose, Whooper Swan and Golden Plover	Wintering Waterfowl and Waders	Greylag Goose	The site is of most importance as the largest Greylag Goose site in the country, but it also regularly supports three species which are listed on Annex I of the E.U. Birds Directive – Greenland White-fronted Goose, Whooper Swan and Golden Plover.
004024	South Dublin Bay and River Tolka Estuary	Roseate Tern, Common Tern, Arctic Tern, Little Tern, Bar-tailed Godwit and Mediterranean Gull	Wintering Waterfowl and Waders		This SPA supports a range of wintering wildfowl and waders and is of importance as a post-breeding season roost for terns and gulls.

Table 3.2: SPAs Located Within 15km of any Vision 2030 Proposal (continued)

Site Code	Site Name	Annex I Species	Other Features	Non Annex I Species	Summary of Interest
004122	Skerries Islands	Short-eared Owl, Golden Plover	Wintering Waterfowl and Waders	Brent Goose	The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.
004186	The Murrough	Red-throated Diver	Wintering Waterbirds	Brent Goose, Greylag Goose, Wigeon, Teal, Black-headed Gull and Herring Gull	The Murrough SPA is an important site for wintering waterbirds, being internationally important for Brent Goose and nationally important for Red-throated Diver, Greylag Goose, Wigeon, Teal, Black-headed Gull and Herring Gull.
004040	Wicklow Mountains	Merlin and Peregrine		Ring Ouzel, Red Grouse	This site is of high ornithological importance as it supports very good examples of upland and woodland bird communities. Several of the species which occur are very rare at a national level. Two species, Ring Ouzel and Red Grouse, are Red-listed and their status is of high conservation concern. Also of note is that Merlin and Peregrine are both listed on Annex I of the E.U. Birds Directive.
004127	Wicklow Head	Peregrine			The site also supports a pair of breeding Peregrines, a species listed on Annex I of the EU Birds Directive. Ravens nest annually on the cliffs, and the heath supports such species as Stonechat, Whitethroat and Linnet.

4. ELEMENTS OF THE PLAN LIKELY TO AFFECT NATURA 2000 SITES

The Strategy will provide a framework for the development of transport infrastructure and associated policies within the Great Dublin Area for the period to 2030. The exact location and the nature of the infrastructure will be specified to the fullest extent possible where it is known and in other cases approximate alignments based on the information available will be provided. In addition to the overarching strategy, an interim implementation plan and investment programme will for part of 2030 Vision.

Many of the transport projects proposed in the plan, particularly those involving the construction of new infrastructure, have potential to result in both direct impacts on Natura 2000 sites in terms of direct 'land-take' within the site boundary; or indirect impacts that may result from changes to hydrology or water quality, increased levels of human disturbance, and a range of other possible impacts.

Recognising the link between transport and land use, the Strategy is also likely to be taken into consideration in the making of decisions on land use planning applications thereby influencing the nature, size and location of future land use development resulting in potential indirect negative impacts to Natura 2000 sites. Should such impacts be identified at future stages of this HDA, this may result in a reconsideration of the screening conclusion relating to some Natura 2000 sites.

The possible impacts that might arise from the draft plan have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 sites. Tables 4.1 to 4.4 present a summary of the conclusions of this exercise. Those sites for which potential effects and impacts have been identified will be taken forward to Stage 2 Appropriate Assessment. Those for which no potential impacts are anticipated as a result of actions prescribed by the Plan do not require Stage 2 Appropriate Assessment and are 'screened-out' at this stage of the assessment.

4.1 Direct Impacts

Tables 4.1 (cSACs) and 4.2 (SPAs) detail the Natura 2000 sites and proposals of the plan where there appears to be a direct spatial overlap and therefore a likelihood of direct impacts on the Natura 2000 site. The nature and significance of direct impacts on Natura 2000 sites will vary from site to site and according to the development that is proposed. Examples include the following:-

- Habitat loss or destruction.
- Disturbance of habitats and birds, etc.
- Altered abiotic/site factors (e.g., through soil removal, compaction or erosion); and
- Habitat fragmentation (selective habitat removal and/or introduction of barriers like roads).

This analysis is based upon current information, and there is a possibility that as the proposals develop it will become apparent that certain of the direct impacts listed in the Tables can in reality be avoided. Currently however, these 14 sites, where direct impacts are considered possible will be progressed to Stage 2 of the HDA process for further assessment of the potential significance of any impacts. Additional Natura 2000 sites where indirect impacts are considered likely will also be carried forward to Stage 2 assessment, this is discussed in Section 4.2.

Table 4.1: cSACs Where Possible Direct Impacts Have Been Identified

Site Name	Code	Description of Proposal (from NTA)
Baldoyle Bay	DCC 1b	Upgrade of N32 (dualling M1 to Malahide Road, then offline dual to east including new public transport orbital and radial routes. Links into Clongriffin station via "Parkway Boulevard"
	FCC 9	R123 Moyne Road Upgrade - Offline upgrade of Regional Road
	DTO R1	3-4 tracking of Northern rail corridor between East Wall junction and Howth Junction (see also IE11d above)
Ballyman Glen	DLR 15a	Combined road/Luas bridge Brook Valley to between lands at Old Conna and Fassaroe
Ballynafagh Lake	MCC 6	Leinster Outer Orbital Route. Orbital route traversing the outer Dublin area from Drogheda to Naas via Navan
Bray Head	IE 11c	Passing loops on single track railway line south of Bray
Rye Water Valley/Carton	IE 11a	Selective double tracking west of Maynooth
	MCC 12	Dunboyne-Maynooth Regional Road
River Barrow and River Nore	KCC 4b	Ring Road for Athy - northern distributor
	KCC 4c	Ring road for Athy - southern distributor
South Dublin Bay	NRA 1	Dublin Eastern Bypass - Refer to Feasibility Report (published on NRA website 16/03/09 for public information and issued to DTO on 20/03/09)
The Murrough Wetlands	IE 11c	Passing loops on single track railway line south of Bray
River Boyne and River Blackwater	MCC 3	Pace-Navan Railway. Extension of railway line from Pace to Navan amounting to approximately 34 kilometres of double track. Four stations would be provided; at Dunshaughlin, Kilmessan, Navan town centre and a terminus station to the north of Navan.
	MCC 4	Ashbourne-Hungry Hall N2 Road Scheme - dual carriageway road between Ashbourne and Ardee. The section in Meath terminations at Hungry Hall.
	MCC 5	Slane Bypass - N2 bypass of Slane including a new crossing over the River Boyne.
	MCC 8	N51 Realignment. Realignment of the N51 national secondary route between Navan and Drogheda.Single carriageway online upgrade assumed
	MCC 25	Trim Bypass (north east to west of Trim)
	MCC 6	Leinster Outer Orbital Route. Orbital route traversing the outer Dublin area from Drogheda to Naas via Navan.
Slaney River Valley	WCC 4	Upgrade of the N81 - The N81 upgrade would link Baltinglass to Blessington, with a dual carriageway on the Blessington to Dublin section. The Holywood Cross (Wicklow Gap) to Blessington section would remain single carriageway.
	WCC 1	Leinster Outer Orbital Road Extension to Arklow. Assumed to be generally online improvements with local realignments, and remaining single carriageway.
	KCC 1	Leinster Outer Orbital Road

Table 4.2: SPAs Where Possible Direct Impacts Have Been Identified

Site Name	Code	Description of Proposal (from NTA)
Baldoyle Bay	DCC 1b	Upgrade of N32 (dualling M1 to Malahide Road, then offline dual to east including new public transport orbital and radial routes. Links into Clongriffin station via "Parkway Boulevard"
	FCC 9	R123 Moyne Road Upgrade - Offline upgrade of Regional Road
	DTO R1	3-4 tracking of Northen rail corridor between East Wall junction and Howth Junction (see also IE11d above)
South Dublin Bay and River Tolka Estuary	NRA 1	Dublin Eastern Bypass - Refer to Feasibility Report puublished on NRA website 16/03/09 for public information and issued to DTO on 20/03/09)
Poulaphouca Reservoir	WCC 4	Upgrade of the N81 - The N81 upgrade would link Baltinglass to Blessington, with a dual carriageway on the Blessington to Dublin section. The Holywood Cross (Wicklow Gap) to Blessington section would remain single carriageway.
The Murrough (includes Kilcoole Marshes SPA and Broad Lough SPA)	IE 11c	Passing loops on single track railway line south of Bray

4.2 Indirect Impacts

This Section presents details of the Natura 2000 sites where it is considered that there is a likelihood of indirect impacts occurring as a result of the proposals of the Strategy. This has been determined by examination of a number of factors including the spatial distance of the Natura 2000 site from a proposal; the sensitivity of the qualifying features of the site to various perturbations and the physical requirements of the site, particularly in terms of hydrology and water quality, and the potential for disturbance to fauna, which are amongst the most frequent pathways by which indirect impacts occur. Some examples of the consequences of typical indirect impacts are as follows:-

- Altered species composition due to changes in abiotic conditions.
- Altered species or habitat composition due to increased edge effects (a consequence of habitat fragmentation, for example).
- Reduced breeding success (e.g., due to disturbance, habitat loss, fragmentation, pollution) possibly resulting in reduced population viability.
- Air quality and climate change and impacts from greenhouse gas emissions reduction/increase.
- Run off of pollutants during construction and operational phase of development resulting in impacts to surface water and groundwater and the species they support.

Tables 4.3 (cSACs) and 4.4 (SPAs) present details of the sites and provide a brief summary of the indirect impacts that are considered possible. The Natura 2000 sites where direct impacts are anticipated (see Section 4.1) are not included in the Tables however in addition to the direct impacts that are anticipated, it is likely that these sites will also experience indirect impacts from the proposals listed in Tables 4.1 and 4.2 and perhaps from other proposals.
This analysis is based upon current information, and there is a possibility that as the proposals develop it will become apparent that certain of the indirect impacts listed in the Tables can in reality be avoided be avoided. Currently however, all of these sites, where

indirect impacts are possible will be progressed to Stage 2 of the HDA process for further assessment of the potential significance of any impacts.

Table 4.3: Possible Indirect Impacts on cSACs

Site Name	Disturbance to Fauna and Habitats	Hydrology	Water Quality	Key Proposals
Ballynafagh Bog	None	Possible Impacts	Possible Impacts	MCC 6: Leinster Outer Orbital Route passes within 1km and indirect impacts are therefore a possibility.
Ballyprior Grasslands	None	None	None	This site lies more than 8km from KCC 4c: Ring road for Athy - southern distributor. The site is designated on the basis of its calcareous grassland which is not a hydrologically dependent habitat and the site is 'upstream' of the proposed ring road negating the likelihood of water quality or hydrological impacts.
Buckroney Brittas Dunes and Fen	None	Possible Impacts	Possible Impacts	This site lies less than 1km from the existing N11 and includes habitats such as Alkaline fens and dune slacks that are water-dependent. Hence it is considered that proposal WCC 2: Dualling of the N11 between Wicklow and Arklow, has potential indirect impacts on this site.
Boyne Coast and Estuary	None	Possible Impacts	Possible Impacts	A number of proposals involve crossing of the Boyne upstream of this site, the closest being MCC 8: N51 Realignment, which lies approximately 8km upstream. Hydrological and water quality impacts are therefore considered to be a possibility.
Carriggower Bog	None	None	None	This is an elevated site, lying above 200m asl. No substantial construction works are proposed within approximately 10km of the site and are at lower altitude negating the likelihood and any hydrological or water quality impacts.

Table 4.3: Possible Indirect Impacts on cSACs (continued)

Site Name	Disturbance to Fauna and Habitats	Hydrology	Water Quality	Key Proposals
Clogher Head	None	None	None	This site is designated on the basis of the habitat type vegetated sea cliffs' which is not water dependent and therefore not susceptible to water-based indirect impacts. The closest proposal to this site, MCC 8: N51 Realignment is 12km distant. No indirect impacts are therefore anticipated.
Dundalk Bay	None	None	None	This site lies 12km from the closest proposal, MCC 5: Slane Bypass, and whilst the proposal includes a crossing of the River Dee which flows into the site, such a crossing would be more than 20km upstream. The site is designated on the basis of coastal, estuarine and saltmarsh habitats and it is considered highly unlikely that water quality impacts this distant from the site could result in significant negative impacts.
Glenasmole Valley	None	Possible Impacts	Possible Impacts	Whilst this site lies upstream of any proposals substantially reducing the risk of any hydrological or water quality impacts, it is designated in part for the habitat type 'petrifying springs with tufa formation' which is highly sensitive to such impacts.
Glen of the Downs	None	None	None	No works are proposed within 6km of this site other than IE 11c: Passing loops on single track railway line south of Bray, 3km to the east. The oak woodland habitat is not highly susceptible to indirect impacts and none are anticipated.
Deputy's Pass Nature Reserve	Possible Impacts	None	Possible Impacts	IE 11c: Passing loops on single track railway line south of Bray, includes works within only 30m of this site. Depending on the exact location of the planned 'passing loops', direct impacts on its oak woodland habitats are therefore a possibility.

Table 4.3: Possible Indirect Impacts on cSACs (continued)

Site Name	Disturbance to Fauna and Habitats	Hydrology	Water Quality	Key Proposals
Holdenstown Bog	None	Possible Impacts	Possible Impacts	WCC1: Leinster Outer Orbital Road Extension to Arklow, passes within 2km and indirect impacts are therefore a possiblilty.
Howth Head	Possible Impacts	None	None	This site is designated on the basis of the habitat type vegetated sea cliffs' which is not water dependent and therefore not susceptible to water-based indirect impacts. The closest construction based proposals are approximately 5km from the site. Improvements to DART connections and projected substantial increases in population in north Co Dublin may however increase visitor pressure in the Howth area.
Ireland's Eye	None	None	None	This island site is designated on the basis of the habitat types 'vegetated sea cliffs' and 'perennial vegetation of banks' neither of which is water dependent and therefore not susceptible to water-based indirect impacts. There are no proposals located on the island and the closest construction based proposals are more than 4km from the site.
Kilconny Bog	None	Possible Impacts	Possible Impacts	MCC1 meets the existing N3 less than 1.5km from this site making indirect impacts a possibility.
Kilpatrick Sandhills	None	None	None	This site lies 7km distant from WCC1: Leinster Outer Orbital Road Extension to Arklow. The site is designated on the basis of no-water dependent sand dune habitats and no indirect impacts are anticipated.
Knocksink Wood	None	Possible Impacts	Possible Impacts	Whilst this site lies upstream of any proposals substantially reducing the risk of any hydrological or water quality impacts, it is designated in part for the habitat type 'petrifying springs with tufa formation' which is highly sensitive to such impacts.

Table 4.3: Possible Indirect Impacts on cSACs (continued)

Site Name	Disturbance to Fauna and Habitats	Hydrology	Water Quality	Key Proposals
Lambay Island	None	None	None	This island site is designated on the basis of the habitat type vegetated sea cliffs' which is not water dependent and therefore not susceptible to water-based indirect impacts. There are no proposals located on the island and the closest construction based proposals are more than 5km from the site.
Lough Bane and Lough Glass	None	None	None	This 'hard water lakes' site is located 15km from the closest proposal MCC1 and at 100m asl., is well above the height of the proposed road in this area negating the likelihood of hydrological or water quality impacts.
Malahide Estuary	Possible Impacts	Possible Impacts	Possible Impacts	A number of substantial proposals including DTO H1 Swords Western through route and FCC 6 Donabate Ring Road, lie close this site and upstream of it making indirect impacts, particularly to water quality, a possibility.
Moulds Bog	None	Possible Impacts	Possible Impacts	MCC 6: Leinster Outer Orbital Route passes within3 km; The location of KCC 4a Newbridge ring road (south) is not clear but may be close enough to experience impacts
Mount Hevey Bog	None	None	None	This site lies 13km from MCC 6: Leinster Outer Orbital Route and upstream of the proposal on tributaries of the River Boyne negating the likelihood of hydrological or water quality impacts.
North Dublin Bay	Possible Impacts	None	Possible Impacts	A large number of proposals involve construction works within Dublin close to the River Liffey and other watercourses that discharge into Dublin Bay, making water quality impacts a possibility.

Table 4.3: Possible Indirect Impacts on cSACs (continued)

Site Name	Disturbance to Fauna and Habitats	Hydrology	Water Quality	Key Proposals
Pollardstown Fen	None	Possible Impacts	Possible Impacts	MCC 6: Leinster Outer Orbital Route passes within 6 km; The location of KCC 4a Newbridge ring road (south) is not clear. This site is groundwater fed and therefore susceptible to indirect impacts over a considerable distance
Red Bog	None	Possible Impacts	None	This is an elevated site which lies above 250m asl. The proposed N81 upgrade lies 2.6km from the site but at a lower elevations making hydrological or water quality impacts unlikely but possible.
Rogerstown Estuary	Possible Impacts	Possible Impacts	Possible Impacts	A number of substantial proposals including FCC 4 Rush Relief Road, FCC 5 R128 Lusk-Rush Road Upgrade and FCC 6 Donabate Ring Road lie close this site and upstream of it making indirect impacts, particularly to water quality, a possibility.
The Long Derries, Edenderry	None	Possible Impacts	Possible Impacts	KCC 4i: R402 Edenderry to Enfield lies 4km from this site and indirect impacts are therefore a possibility.
White Lough, Ben Loughs and Lough Doo	None	None	None	This 'hard water lakes' site is located 15km from the closest proposal MCC1 and at 120m asl., is well above the height of the proposed road in this area negating the likelihood of hydrological or water quality impacts.
Wicklow Mountains	Possible Impacts	None	None	This is a large site, designated on the basis of a range of upland habitats. Whilst no specific proposals have been identified that are likely to have indirect impacts on this site, a number of significant infrastructure projects are proposed in all directions from the site and it is considered prudent at this stage in the assessment to examine the possibility that indirect impacts that may not be readily apparent such as increased visitor numbers may occur.
Wicklow Reef	None	None	None	This offshore site is located approximately 4km from the closest proposal. There are no proposals that will impact significantly on marine areas.

Table 4.4: Possible Indirect Impacts on SPAs

Site Name	Disturbance to Birds	Hydrology	Water Quality	Key Proposals
Boyne Estuary	None	Possible Impacts	Possible Impacts	A number of proposals involve crossing of the Boyne upstream of this site, the closes being MCC 8: N51 Realignment, which lies approximately 8km upstream. Hydrological and water quality impacts are therefore considered to be a possibility.
Broadmeadows/ Swords Estuary	Possible Impacts	Possible Impacts	Possible Impacts	A number of substantial proposals including DTO H1 Swords Western through route and FCC 6 Donabate Ring Road, lie close this site and upstream of it making indirect impacts, particularly to water quality, a possibility.
Dundalk Bay	None	None	None	This site lies 12km from the closest proposal, MCC 5: Slane Bypass, and whilst the proposal includes a crossing of the River Dee which flows into the site, such a crossing would be more than 20km upstream. The site is designated on the basis of coastal, estuarine and saltmarsh habitats and it is considered highly unlikely that water quality impacts this distant from the site could result in significant negative impacts.
Howth Head Coast	None	None	None	The closest construction based proposals are approximately 5km from the site. The site is designated on the basis of its breeding seabirds which feed over a large area of open sea, there are no proposals that will impact significantly on marine areas.
Ireland's Eye	None	None	None	The closest construction based proposals are approximately 4km from the site. The site is designated on the basis of its breeding seabirds which feed over a large area of open sea, there are no proposals that will impact significantly on marine areas. . There are no proposals located on the island

Table 4.4: Possible Indirect Impacts on SPAs (continued)

Site Name	Disturbance to Birds	Hydrology	Water Quality	Key Proposals
Lambay Island	None	None	None	This island site is designated on the basis non-breeding population of Greylag Geese and on the basis of its breeding seabirds which feed over a large area of open sea, there are no proposals that will impact significantly on marine areas. There are no proposals located on the island and the closest construction based proposals are more than 5km from the site.
River Nanny Estuary and Shore	Possible Impacts	None	None	The site is located only 3km from road construction proposals around Balbriggan, FCC 1 Balbriggan C-Ring and FCC 2 R122 Naul Road. Whilst no specific indirect impacts have been identified on the wintering waders and wildfowl for which the site is designated, it is considered that the close proximity makes this a possibility.
North Bull Island	Possible Impacts	None	Possible Impacts	A large number of proposals involve construction works within Dublin close to the River Liffey and other watercourses that discharge into Dublin Bay, making water quality impacts a possibility.
Rockbill	None	None	None	The island is more than 6km offshore and 7km from any proposal. Whilst the islands terns feed over a wide area of open sea, there are no proposals that will impact significantly on marine areas. . There are no proposals located on the island
Rogerstown Estuary	Possible Impacts	Possible Impacts	Possible Impacts	A number of substantial proposals including FCC 4 Rush Relief Road, FCC 5 R128 Lusk-Rush Road Upgrade and FCC 6 Donabate Ring Road lie close this site and upstream of it making indirect impacts, particularly to water quality, a possibility.
Skerries Islands	None	None	None	This site is designated its wintering wildfowl and waders. There are no proposals located on the island and whilst the closest construction based proposals are only 3km from the site, FCC 3, Skerries Southern Relief Road, it is considered unlikely that this will result in any indirect impacts on the site.

Table 4.4: Possible Indirect Impacts on SPAs (continued)

Site Name	Disturbance to Birds	Hydrology	Water Quality	Key Proposals
Strabannan-Braganstown	Possible Impacts	Possible Impacts	Possible Impacts	This site is located 4km from the closest proposal, MCC 5: Slane Bypass. The site is the most important wintering site for Greylag Goose in the country and this species can be susceptible to disturbance. The habitats that support the geese, are to some extent water-dependent and hence indirect impacts are considered possible.
Wicklow Head	Possible Impacts	None	None	This site is located 2.5km from the closest proposal, IE 11c Passing loops on single track railway line south of Bray. Whilst no specific indirect impacts have been identified on the cliff-nesting birds for which the site is designated, it is considered that the close proximity makes this a possibility.
Wicklow Mountains	Possible Impacts	None	None	This is a large site, designated on the basis of number of breeding bird species. Whilst no specific proposals have been identified that are likely to have indirect impacts on this site, a number of significant infrastructure projects are proposed in all directions from the site and it is considered prudent at this stage in the assessment to examine the possibility that indirect impacts that may not be readily apparent such as increased visitor numbers may occur.

4.3 Natura 2000 Sites Where Impacts are not Anticipated

As a result of the assessment, it is not considered necessary to include the Natura 2000 sites listed in Table 5.1 in Stage 2 of the Habitats Directive Assessment as no impacts on these sites are anticipated as a result of implementation of any of the proposals outlined in the strategy.

It is important to appreciate that HDA is an iterative process and as this HDA progresses it is possible that additional information may become available, for example relating to cumulative impacts from other plans and projects, than may result in a change to this conclusion for any particular site.

The decision to 'screen-out' these sites at this Stage in the HDA is based upon the current situation and upon currently available information and this conclusion does not necessarily preclude the need for project-based HDA if and when these proposals are progressed to future planning stages.

5. SCREENING CONCLUSIONS

Tables 5.1 and 5.2 list the Natura 200 sites that are 'screened-out' (Stage 2 assessment is not required; and 'screened-in' (Stage 2 assessment is required).

Table 5.1: Sites 'Screened-out' of this HDA at Stage 1 – Screening

Site Name	Site Code
Ballyprior Grasslands cSAC	002256
Carriggower Bog cSAC	007140
Clogher Head cSAC	001459
Dundalk Bay cSAC	000455
Glen of the Downs cSAC	00719
Ireland's Eye cSAC	002193
Kilpatrick Sandhills cSAC	001742
Lambay Island cSAC	000204
Lough Bane and Lough Glass cSAC	002120
Magherabeg Dunes cSAC	001766
Moneybog and Clareisland Bog cSAC	002340
Mount Hevey Bog cSAC	002342
Vale of Clara (Rathdrum Wood) cSAC	000733
White Lough, Ben Loughs and Lough Doo cSAC	001810
Wicklow Reef cSAC	002274
Dundalk Bay SPA	004026
Howth Head Coast SPA	004113
Ireland's Eye SPA	002193
Lambay Island SPA	004069
Rockabill SPA	004014
Skerries Islands SPA	004122

Table 5.2: Sites 'Screened-in' for Stage 2 Appropriate Assessment

Site Name	Site Code
Baldoyle Bay cSAC	000199
Ballyman Glen cSAC	000713
Ballynafagh Bog cSAC	000391
Ballynafagh Lake cSAC	001387
Bray Head cSAC	00714
Boyne Coast and Estuary cSAC	001959
Buckroney Brittas Dunes and Fen cSAC	000729
Deputy's Pass Nature Reserve cSAC	000717
Glenasmole Valley cSAC	001209
Holdenstown Bog cSAC	001757
Howth Head cSAC	000202
Kilkonny Bog (Cloghbally) cSAC	000006
Knocksink Wood cSAC	000725
Malahide Estuary cSAC	000205
Mouds Bog cSAC	002331
North Dublin Bay cSAC	000206
Pollardstown Fen cSAC	000396
Red Bog cSAC	000397
River Barrow and River Nore cSAC	002162
River Boyne and River Blackwater cSAC	002299
Rogerstown Estuary cSAC	000208
Rye Water Valley/Carton cSAC	001398
Slaney River Valley cSAC	000781
South Dublin Bay cSAC	000210
The Long Derries, Edenderry cSAC	000925
The Murrough Wetlands cSAC	002249

Table 5.2: Sites 'Screened-in' for Stage 2 Appropriate Assessment (continued)

Site Name	Site Code
Wicklow Mountains cSAC	002122
Baldoyle Bay SPA	004016
Boyne Estuary SPA	004080
Broadmeadows/Swords Estuary SPA	004025
North Bull Island SPA	004006
Poulaphouca Reservoir SPA	004063
River Nanny Estuary and Shore SPA	004158
Rogerstown Estuary SPA	004015
South Dublin Bay and River Tolka Estuary SPA	004024
Strabannan-Braganstown SPA	004091
The Murrough SPA (includes Kilcoole Marshes SPA and Broad Lough SPA)	004186
Wicklow Head SPA	004127
Wicklow Mountains SPA	004040

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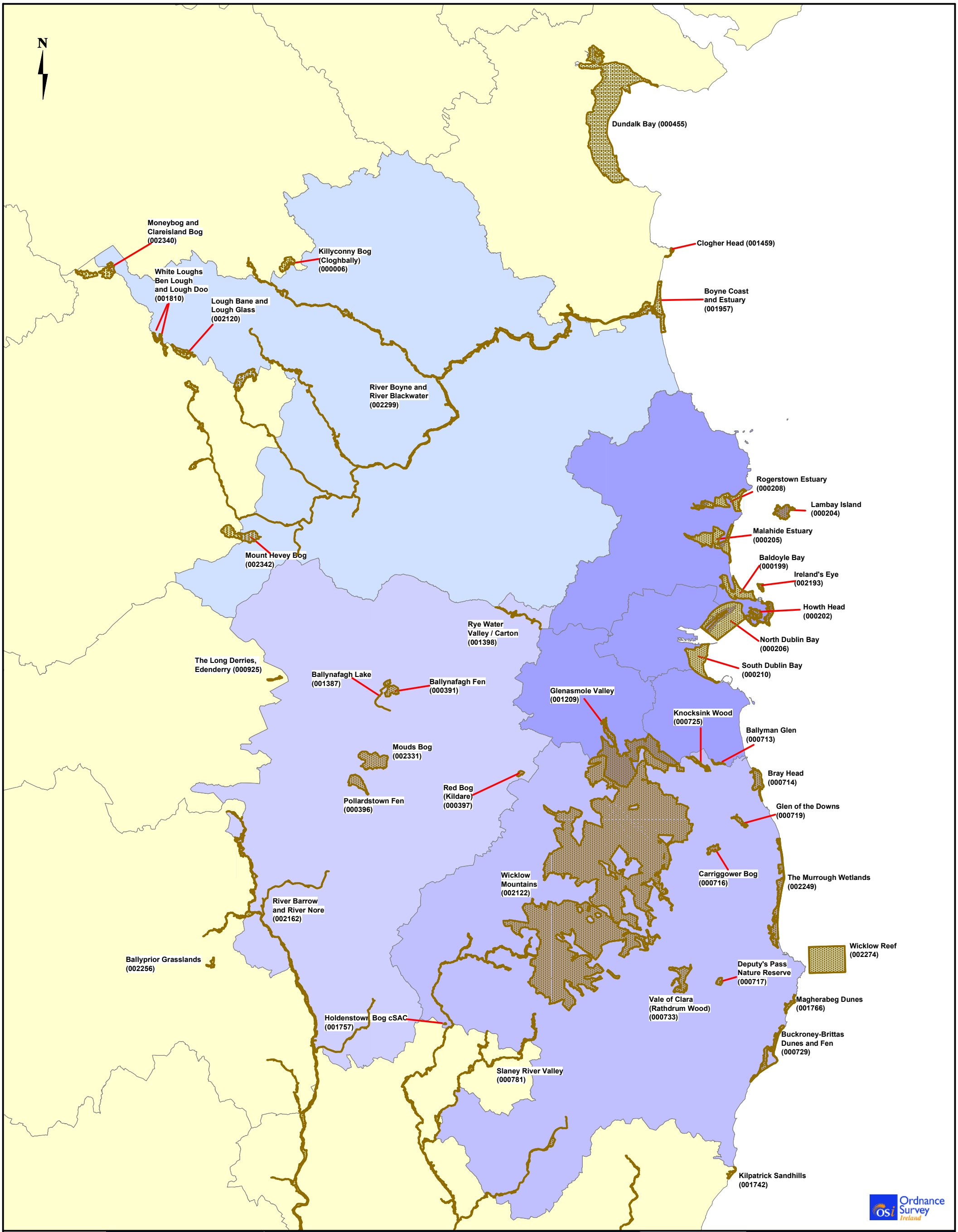

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Greater Dublin Area Transport Strategy 2010 -2030 Habitats Directive Assessment

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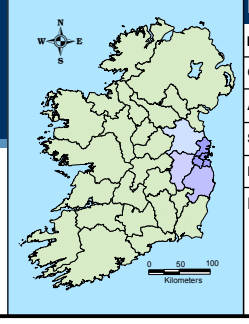
Figure 1: Special Areas of Conservation in the Zone of Influence of the Vision 2030 Greater Dublin Area Transport Strategy



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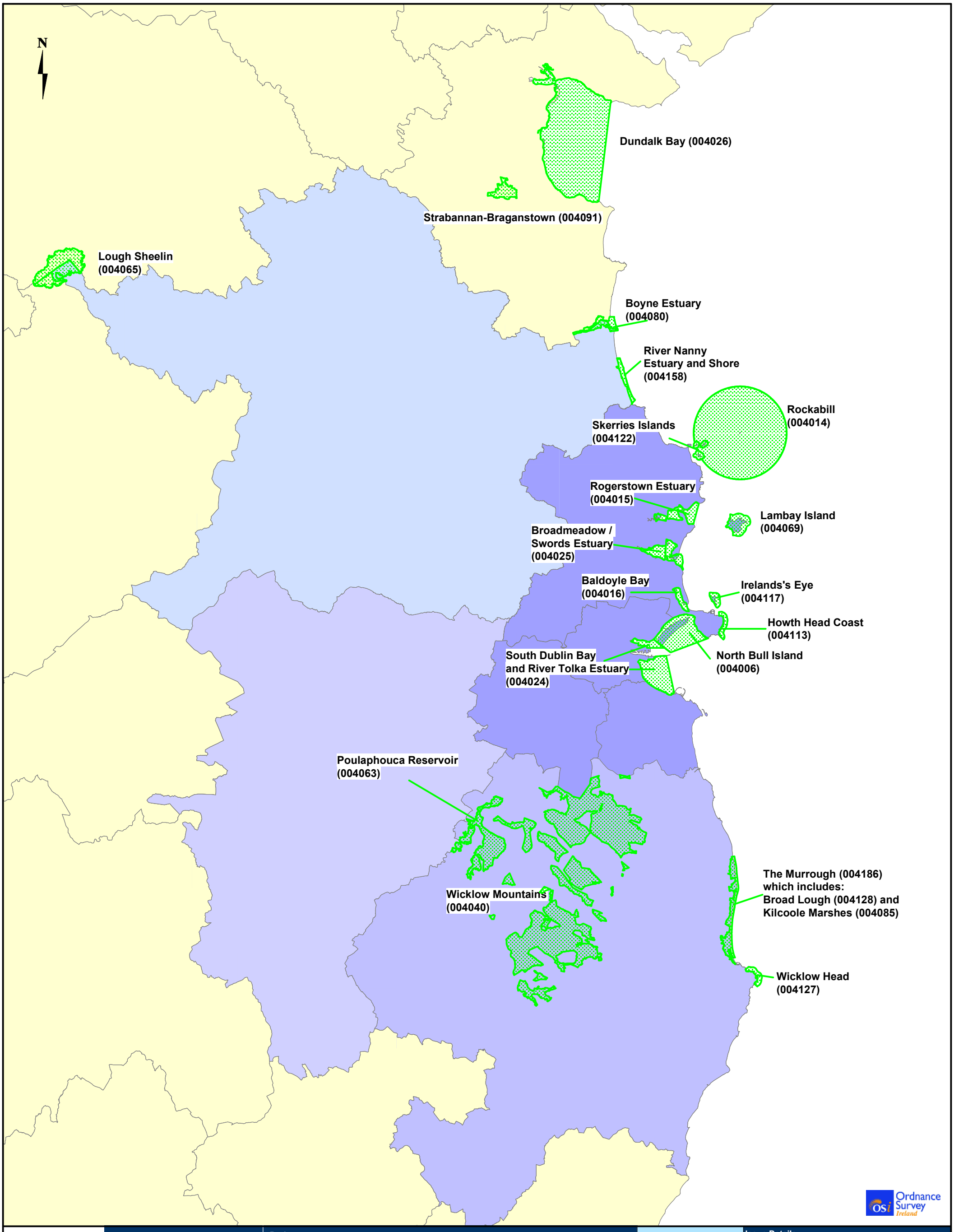

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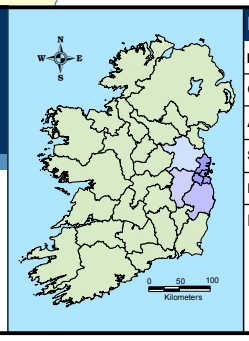
Figure 2: Special Protection Areas in the Zone of Influence of the Vision 2030 Greater Dublin Area Transport Strategy



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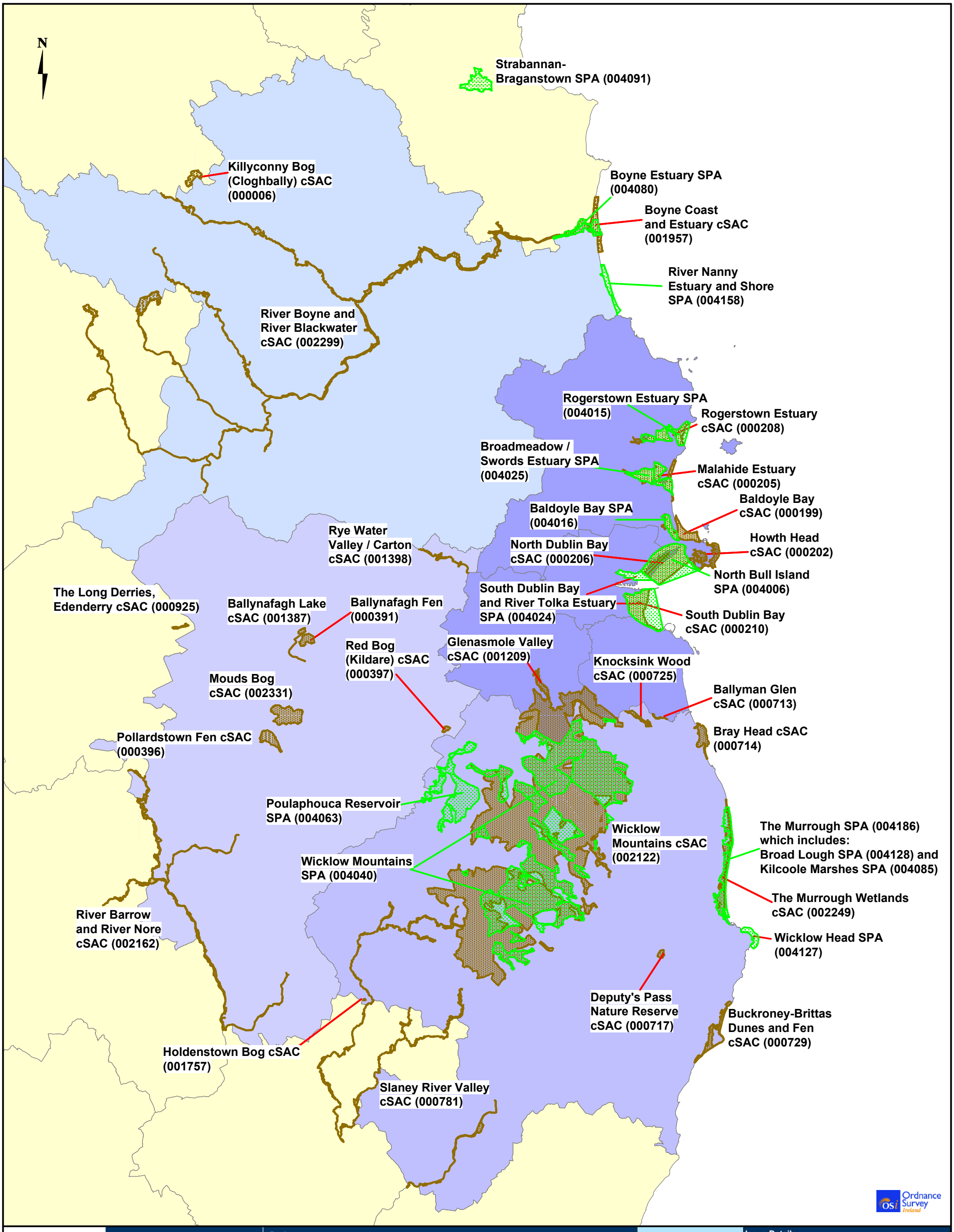

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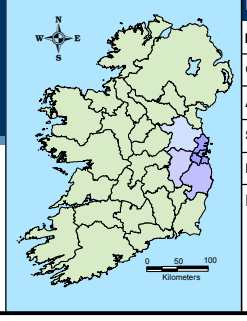
Figure 3: Natura 2000 sites 'Screened-in' to Stage 2 of the Assessment



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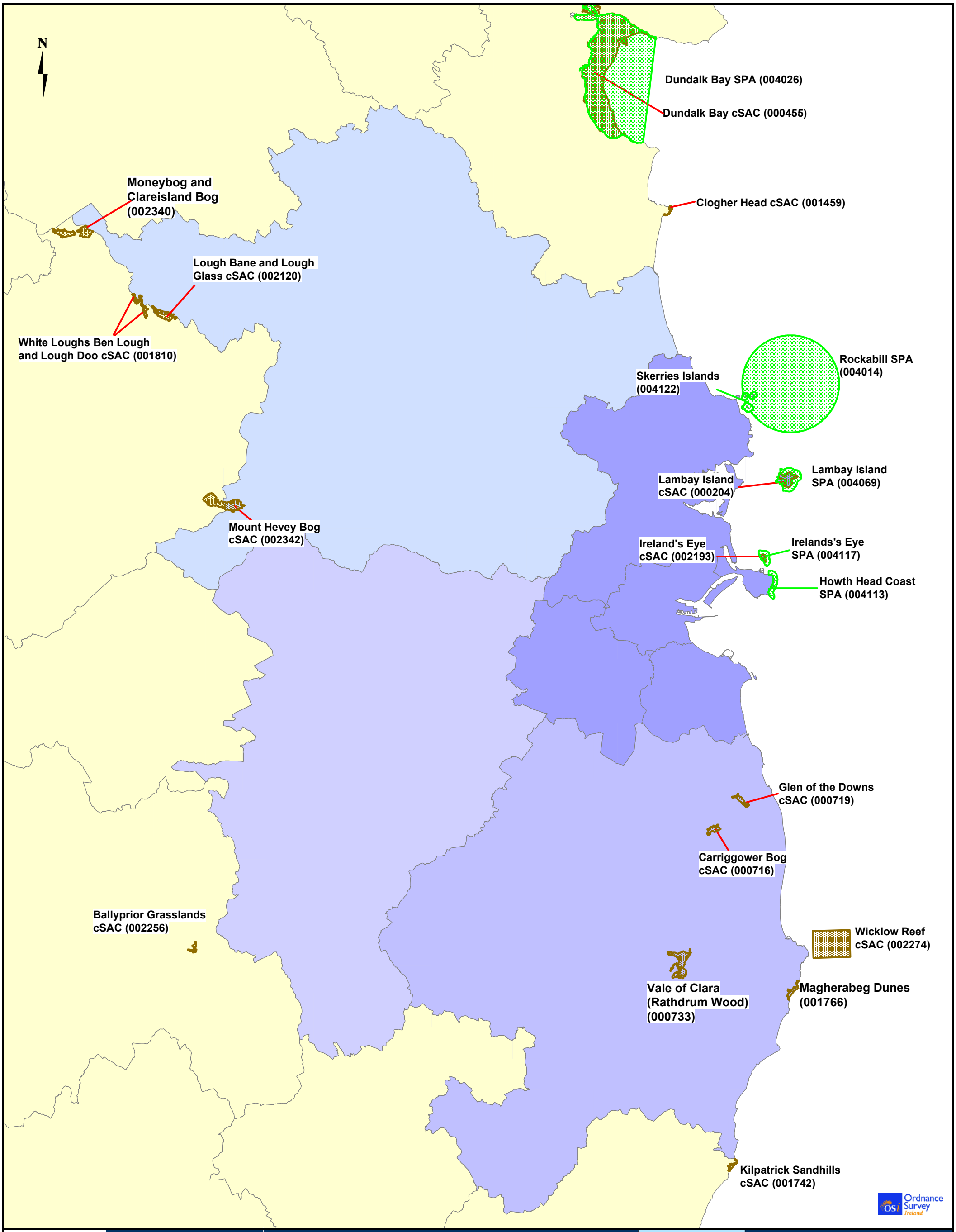

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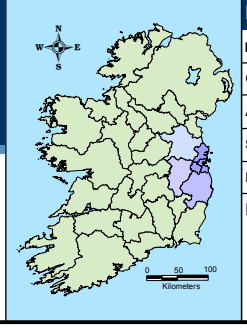
Figure 4: Natura 2000 sites 'Screened-out' to Stage 2 of the Assessment



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