

Habitats Directive Assessment Natura Impact Statement

Greater Dublin Area **Draft Transport Strategy** **2011-2030** **2030 vision**





2030 VISION: GREATER DUBLIN AREA TRANSPORT STRATEGY

Habitats Directive Appropriate Assessment; Natura Impact Statement (NIS)

DOCUMENT CONTROL SHEET

Client	National Transport Authority					
Project Title	2030 Vision: Greater Dublin Area Transport Strategy					
Document Title	Habitats Directive Appropriate Assessment; Natura Impact Statement (NIS)					
Document No.	RPS/MCE0673RP0003F01					
This Document Comprises	DCS	TOC	Text	List of Tables	List of Figures	No. of Appendices
	1	1	29	0	1	3

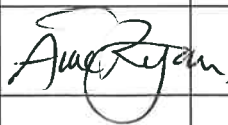
Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
F01	Final Issue	R. Mundy	Aileen McSwiney		Cork	11th May 2011

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	DESCRIPTION OF THE PLAN; THE VISION 2030 STRATEGY	2
2.1	POSITIVE ELEMENTS IN THE STRATEGY TEXT WITH RESPECT TO THE PROTECTION OF NATURA 2000 SITES	4
2.2	LAND USE AND PLANNING ISSUES.....	6
3.	POTENTIAL IMPACTS ON NATURA 2000 SITES AND ASSESSMENT OF SIGNIFICANCE	7
3.1	SITES WHERE DIRECT IMPACTS ARE POSSIBLE	7
3.2	NATURA 2000 SITES WHERE INDIRECT IMPACTS ARE CONSIDERED POSSIBLE	14
3.3	IN COMBINATION EFFECTS	18
3.4	OTHER POSSIBLE IMPACTS IDENTIFIED IN THE AA SCREENING REPORT.....	22
4.	RECOMMENDED MITIGATION MEASURES.....	24
4.1	ADDITIONAL TEXT RECOMMENDED FOR INCLUSION IN CHAPTER 7	24
4.2	ADDITIONAL TEXT RECOMMENDED FOR INCLUSION IN CHAPTER 8 ‘PLANNING FOR SUSTAINABLE LIVING’; SUB-SECTION 8.6 ‘ENVIRONMENTAL CONSIDERATIONS’	25
4.3	ADDITIONAL TEXT RECOMMENDED FOR INCLUSION IN CHAPTER 9 ‘WALKING AND CYCLING’; SUB-SECTION 9.5.2 ‘RECREATIONAL CYCLING’	25
4.4	ADDITIONAL TEXT RECOMMENDED FOR INCLUSION IN CHAPTER 10 ‘PUBLIC TRANSPORT’; SUB-SECTION 10.3.3 ‘HEAVY RAIL’	25
4.5	ADDITIONAL TEXT RECOMMENDED FOR INCLUSION IN CHAPTER 11 ‘ROADS, FREIGHT AND TRAVEL DEMANDS MANAGEMENT; SUB-SECTION 11.1.2 ‘DEVELOPMENT OF THE ROAD NETWORK, MAJOR ROAD PROPOSALS’	26
5.	CONCLUSIONS	27
5.1	CONCLUDING STATEMENT	28

List of Appendices

APPENDIX 1 Qualifying Features of Natura 2000 Sites

APPENDIX 2 Assessment of Possible In-Combination with Other Plans and Projects

APPENDIX 3 Figures A3.1 to A3.3

List of Figures

FIGURE A3.1 Special Areas of Conservation in the Zone of Influence of the Vision 2030 Greater Dublin Area Transport Strategy

FIGURE A3.2 Special Protection Areas in the Zone of Influence of the Vision 2030 Greater Dublin Area Transport Strategy

FIGURE A3.3 Natura 2000 Sites Where There is Potential for Negative Impacts and Relevant Projects

1. INTRODUCTION

This Report presents the results of Stage 2 of the Habitats Directive Appropriate Assessment (AA) of the National Transport Authority's (NTA), *Vision 2030: Greater Dublin Area Transport Strategy*.

The aim of Stage 2 of the Appropriate Assessment process, the 'Appropriate Assessment' itself, is to identify any significant negative impacts that a plan or project might have upon Natura 2000 sites; and to propose changes to the Plan that will avoid any such negative impacts, including the implementation of mitigation measures. The Plan should then be amended accordingly, thereby avoiding the need to progress to Stages 3 and 4 of the AA process, which would require the implementation of measures to mitigate or compensate for any residual significant negative impacts on Natura 2000 sites and/or to demonstrate 'Imperative Reasons of Overriding Public Interest' (IROPI) for the Plan to progress.

The Stage 2 assessment process involves the collection of data firstly on the Plan and secondly on the various Natura 2000 sites that might be impacted upon. The resultant information and assessment are presented in this document, the 'Natura Impact Statement' (NIS).

A previous Briefing Report (RPS, 2010b) highlighted those proposals within the draft of the Vision 2030 Strategy that, if progressed to the planning process, would be most likely to incur significant constraints for the scheme proponents with regard to impacts on Natura 2000 designations. A number of the identified schemes have not been included in subsequent drafts of the Strategy. This document presents the Stage 2 Appropriate Assessment of those which remain in the Strategy.

Department of the Environment, Heritage and Local Government (DoEHLG) guidelines (DoEHLG, 2009) state that the NIS should fulfil the following requirements:

- Describes the Plan in sufficient detail to make clear its size, scale and objectives;
- Describes the baseline conditions, conservation objectives, and relevant ecological and environmental issues in relation to the relevant Natura 2000 sites;
- Identifies potential adverse impacts of the Plan on the Natura 2000 sites;
- If possible, explains how the effects will be avoided through mitigation; and
- Sets out a timescale and identifies the mechanisms through which the mitigation measures will be secured, implemented and monitored.

The description of the Strategy is covered in Section 2 of this NIS. Section 3 of this NIS identifies and discusses the potential impacts of the plan on the Natura 2000 sites; and describes the likely significant impacts that have been identified. Section 4 describes the mitigation measures that are required to avoid impacts on the Natura 2000 sites; this takes the form of proposed amendments and additions to the text of the Strategy.

The NIS was completed in January 2011 and was put on public display with the Draft Strategy. In May 2011, this NIS was updated to take account of a submission from the Development Applications Unit of the DoEHLG, which included the following comments from NPWS: "The Department agrees with the recommendations as outlined in the Natura Impact Statement (NIS) and notes these recommendations have been incorporated into the draft Strategy. However, it is also noted that section 3.2 of the NIS refers to the identification, within section 3.2, of the conservation objectives of relevant Natura 2000 sites. It would appear such objectives have not been included in the text of Section 3.2. This appears to be an error and will need to be addressed."

2. DESCRIPTION OF THE PLAN; THE VISION 2030 STRATEGY

This Section of the NIS presents details of the aims, objectives and structure of the final draft of the Strategy entitled: Vision 2030: Greater Dublin Area Transport Strategy.

The Scope of the Strategy is relatively broad and relates to all aspects of transport strategy within the Greater Dublin Area, which covers all of Counties Dublin, Wicklow, Kildare and Meath; the same area as is covered by the Regional Planning Guidelines. The Strategy covers the period 2011 to 2030.

Whilst some aspects, for example proposals for new infrastructure, have relatively obvious potential to result in negative impacts on biodiversity in general and on the Conservation Objectives of Natura 2000 sites in particular, others, such as new public transport ticketing and timetabling proposals do not have obvious potential to do so. The purpose of this Section of the NIS is to describe those elements of the Plan where there it is considered that there is a likelihood of either positive or negative impacts on Natura 2000 sites resulting from implementation.

The Strategy is inextricably linked to the principles of sustainable land use planning and is directed by the economic, social, cultural and environmental needs of the residents, workers and visitors to the Greater Dublin Area. The Strategy focuses on a modal shift towards public transport, cycling and walking and away from the private motor car through a broad set of transport and planning policies and is informed in this regard to a high degree by the Government's 'Smarter Travel: A Transport Policy for Ireland' policy and by the 'National Climate Change Strategy'.

Development of the Strategy

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 were appraised by the Strategy team and by the Strategic Environmental Assessment team. All potential infrastructure proposals from each of the three packages were examined together as described in Section 1.3 of the AA Screening Report (RPS, 2010a).

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

High-Level Objective	Sub-Objectives
Objective 1 - Build and Strengthen Communities	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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 4 - Respect and Sustain the Natural Environment	<ul style="list-style-type: none"> ○ 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.

High-Level Objective	Sub-Objectives
Objective 5 - Reduce Personal Stress	<ul style="list-style-type: none"> ○ 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.

Structure of the Strategy

The Strategy, as presented by the NTA for this assessment, consists of the text, including a series of proposed 'Measures' that will be implemented by the Strategy; and GIS mapping which includes details of the locations of proposed infrastructure.

2.1 Positive Elements in the Strategy Text With Respect to the Protection of Natura 2000 Sites

The Strategy includes a number of elements that will contribute to minimising its impacts on biodiversity in general and on the Conservation Objectives of Natura 2000 sites in particular. The Strategy also makes a number of specific references to the avoidance of impacts on Natura 2000 sites. These are in some cases original NTA text of the draft plan and in other cases have been added iteratively as the Strategy has developed in tandem with the SEA and with this Appropriate Assessment. This Section of the NIS details these elements and discusses their positive impact with regard to Natura 2000 sites.

Chapter 7 'Overview of the Strategy'

The overview to the Strategy makes it clear that on overriding objective of the Strategy is to reduce the environmental impacts of transportation in the Greater Dublin Area. These environmental impacts will include some that can have negative effects on Natura 2000 sites such as water pollution, air pollution and land take.

The Strategy aims to achieve these improvements through a number of means including a reduction in private vehicle usage whilst increasing cycling, walking and the use of public transport; and the integration of the land-use and planning strategies with the transport strategy. The ways in which the Strategy aims to implement these overall objectives; and the ways in which this may have benefits for Natura 2000 sites, are discussed below.

Chapter 8 ‘Planning for a Sustainable Living’

General land use and planning issues in relation to Natura 2000 sites and Appropriate Assessment are discussed in detail in Section 2.4 of this Document.

Chapter 8 ‘Planning for a Sustainable Living’; Sub-section 2.4 ‘Environmental Considerations’

This Section of the Strategy includes text which reasserts the legal requirement for Regional Planning Guidelines, County / City Development Plans and subsequent reviews to be subject to Appropriate Assessment, and states that protection of the integrity of Natura 2000 sites is considered by the NTA as an ‘overarching guiding principle’: “The plans are also subject to a Habitats Directive Assessment (HDA) which requires that Appropriate Assessment of development plans and projects will take place at the relevant stage and level in the hierarchy. The NTA will monitor all progress in this regard and update and review the Strategy should these plans differ significantly from the land use assumptions used in this strategy, with these overarching guiding principles in mind:

- The accommodation of population and employment growth, and associated supporting services, should occur in a manner which will not have any significant adverse impacts on the environment in the GDA.
- The integrity of Natura 2000 sites should be protected at all levels in the land use planning hierarchy.

Chapter 9 ‘Walking and Cycling’; Sub-section 3.1 ‘Introduction’

A central objective of the strategy is to increase the proportion of journeys made by walking or cycling relative to other modes of transport. Amongst the benefits of this identified in the Strategy is to ‘Improve air quality and reduce transport’s impact on climate change’. There are a number of possible impacts on Natura 2000 sites that may result from climate change such as changes in species composition of ecosystems, changes to the abiotic environment in terms of temperature, hydrology, etc and possible sea level rise. The last of these is generally viewed as a serious problem to many coastal biodiversity resources. Within the Greater Dublin Area are a large number of coastal Natura 2000 sites that support intertidal Annex I habitat types such as saltmarsh which are highly vulnerable to ‘coastal squeeze’, a phenomenon which can occur as a result of sea level rise whereby these intertidal habitats disappear between the rising sea level and developed or otherwise ‘unavailable’ land above the current existing high tide mark. By reducing the Greater Dublin Area’s contribution to global CO₂ emissions, a positive contribution is made towards avoiding such possible future impacts on Natura 2000 sites both within the Greater Dublin Area and throughout the EU territory.

Chapter 9 ‘Walking and Cycling’; Sub-section 3.5.2 ‘Recreational Cycling’:

This Section of the Strategy included an acknowledgement that impacts on Natura 2000 sites resulting from the provision of new recreational cycle paths should be avoided wherever possible. An amendment to this section is proposed as a result of this Assessment (see Section 4.3).

Chapter 10 'Public Transport; Sub-section 4.3.3 'Heavy Rail Infrastructure':

This Section of the Strategy included an acknowledgement that impacts on Natura 2000 sites resulting from improvements to the rail network should be avoided wherever possible. An amendment to this section is proposed as a result of this Assessment (see Section 4.4).

Chapter 11 'Roads, Freight and Travel Demand Management; Sub-section 5.1.2 'Development of the Road Network, Overview':

This Section includes the following: "In general there will be a clear presumption against development of new road proposals unless required to address issues such as safety concerns, provision of space for public transport priority or local servicing of development lands that meet strategy planning objectives."

Road developments in general, as large-scale linear developments, have a relatively high potential to impact negatively on Natura 2000 sites, and a presumption against new road developments is considered to be a positive policy with regard to the potential for impacts on Natura 2000 sites of the Strategy.

This Section of the Strategy included an acknowledgement that impacts on Natura 2000 sites resulting from the provision of new road schemes should be avoided wherever possible. An amendment to this section is proposed as a result of this Assessment (see Section 4.5).

2.2 Land Use and Planning Issues

It is via the Regional Planning Guidelines, County Development Plans and Local Area Plans that land use zoning policy in the Greater Dublin Area is implemented, and it is therefore largely through Appropriate Assessment of these documents that impacts on Natura 2000 sites resulting from land use strategy are assessed and avoided.

NTA land use policy, whilst exceeding the targets of the RPG somewhat in terms of Metropolitan / Hinterland splits, does not seek to fundamentally alter the future direction of planning in the Greater Dublin Area and does not generally seek to locate development in areas which would be regarded as undesirable to develop in the 20 year framework of 2030 Vision, according to the policies of the RPG and County Development Plans.

Hence, the NTA Strategy with regard to land use is almost wholly driven by RPG policies and projections, and land use policies and distribution that are included in the NTA Strategy are therefore most appropriately dealt with by Appropriate Assessment of these statutory land use plans, namely the Regional Planning Guidelines, County Development Plans and Local Area Plans covering the period up to 2030. In some cases, for plans that have already been adopted, this has already been carried-out and this assessment includes a full examination of the Appropriate Assessment Reports for the six County Development Plans, of the Dublin City Development Plans and of the Regional Planning Guidelines, in the context of identifying any negative effects that may result in-combination with this Strategy. Results of this part of the Appropriate Assessment are presented in Section 4.3 and in Appendix 2.

3. POTENTIAL IMPACTS ON NATURA 2000 SITES AND ASSESSMENT OF SIGNIFICANCE

The Screening report for this assessment (RPS, 2010a) presented details of all of the Natura 2000 sites within the Greater Dublin Area Transport Strategy area (Counties Wicklow, Dublin, Meath and Kildare) or close enough to the boundary of the region that impacts were considered to be a possibility. Tables 3.1 and 3.2 of the Screening Report presented details, including the Qualifying Features, of all Natura 2000 sites located within 15km of any Vision 2030 proposal.

The number of infrastructure projects included in the final Strategy has reduced substantially from the drafts on which the Screening Report was based. In addition, further details on the projects has become available and as a result, the number of Natura 2000 sites where impacts are considered possible, i.e. the number of 'relevant' Natura 2000 sites, has reduced substantially.

3.1 Sites Where Direct Impacts are Possible

Table 3.1 presents details of the Natura 2000 sites where direct impacts are possible due to spatial overlap of infrastructure projects included in the Strategy and the site boundary of the designation. Appendix 1 presents full details of the Qualifying Features of each Natura 2000 site.

Table 3.1: cSACs and SPAs Where Direct Impacts are Possible

Site Code	Site Name	Relevant Infrastructure Project
000208	Rogerstown Estuary cSAC	Northern Rail Line Upgrade
002299	River Boyne and River Blackwater cSAC	New Navan Rail Line; Leinster Orbital Route Road
000205	Malahide Estuary cSAC	Northern Rail Line Upgrade
002249	The Murrough Wetlands cSAC	Southern Rail Line Upgrade
00714	Bray Head cSAC	Southern Rail Line Upgrade
000210	South Dublin Bay cSAC	Sutton to Sandycove Cycle Track
000717	Deputy's Pass Nature Reserve cSAC	Southern Rail Line Upgrade
004025	Broadmeadows/Swords Estuary SPA	Northern Rail Line Upgrade
004015	Rogerstown Estuary SPA	Northern Rail Line Upgrade
004186	The Murrough SPA	Southern Rail Line Upgrade
004024	Sandymount Strand / Tolka Estuary SPA	Sutton to Sandycove Cycle Track

The potential for direct impacts on these sites results from five prospective infrastructure projects that are included in the Strategy, these are discussed in the following Sections, and an assessment is made of the likely significance or otherwise of the effects.

Sutton to Sandycove Cycle Track

Section 3 'Walking and Cycling'; Sub-section 3.5.2 'Recreational Cycling' of the Strategy discusses proposals for coastal, canal and riverside cycle tracks which will provide leisure routes and will in some cases double as routes for commuters.

Measure WCY 13 of the Strategy includes *inter alia* the following proposal: "The Authority will seek the provision of coastal, canal and riverside cycle tracks, including the Sutton to Sandycove coastal route."

The Route as envisaged, may lie along the eastern shoreline of the southern part of Dublin Bay and therefore along the western boundaries of *South Dublin Bay* cSAC and *Sandymount Strand / Tolka Estuary* SPA, and it is considered that significant impacts on these sites may therefore result.

The most likely impacts that may result from the progression of this scheme are:

- 1) Direct loss of the Annex I intertidal habitat 'Mudflats and sandflats not covered by seawater at low tide', a Qualifying Feature of *South Dublin Bay* cSAC and also a critical resource with regard to birds using *Sandymount Strand / Tolka Estuary* SPA; and
- 2) Increased levels of visual and noise disturbance to the birds using *Sandymount Strand / Tolka Estuary* SPA during both construction and operation of the cycle path, resulting in displacement or other negative effects.

Whilst the alignment and design details for the cycle path are not yet available, it is considered that this proposal presents a potentially significant threat to the Conservation Objectives of both *South Dublin Bay* cSAC and *Sandymount Strand / Tolka Estuary* SPA and mitigation in the form of additional text which acknowledges this potential and also acknowledges the requirement for Appropriate Assessment of any project that results from the inclusion of this Measure in the strategy. The additional text must also make reference to the possibility that in the event that project-level Appropriate Assessment identifies significant negative impacts, then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

Recommended wording for additional text is presented in Section 4.3.

Northern Rail Line Upgrade

Section 4 'Public Transport'; Sub-section 4.3.2 'Heavy Rail' of the Strategy discusses proposals for improvements in the rail infrastructure of the Greater Dublin Area and proposed a major investment in this regard.

Measure RAIL 2 of the Strategy is as follows:

"The Authority will seek:

- Subject to a feasibility study and economic assessment, the implementation of additional tracks on the Northern Line between Connolly and Balbriggan, or a point

south of Balbriggan, to separate intercity and fast regional services from stopping DART services in this corridor; and

- The electrification of the Northern Line from Malahide to Balbriggan to allow an extension of DART services to Balbriggan.”

The existing Northern Rail Line crosses both, Rogerstown Estuary, bisecting both *Rogerstown Estuary* cSAC and *Rogerstown Estuary* SPA; and the Swords / Malahide Estuary, bisecting both *Malahide Estuary* cSAC, *Broadmeadow / Swords Estuary* SPA. The proposed ‘four-tracking’ of the Line is likely to necessitate widening of both bridging points and is considered likely that this could potentially result in significant negative impacts on some or all of these four sites.

The most likely impacts that may result from the progression of this scheme are:

- 1) Direct loss of areas of Annex I habitat, probably the intertidal habitats, ‘Mudflats and sandflats not covered by seawater at low tide’ and ‘Salicornia and other annuals colonizing mud and sand’ and perhaps also the salt marsh habitats, ‘Mediterranean salt meadows’ and ‘Atlantic salt meadows’ all of which are Qualifying Feature of both *Rogerstown Estuary* and *Malahide Estuary* cSACs; the Annex I habitat ‘Estuaries’, which is a Qualifying Feature of *Rogerstown Estuary* cSAC;
- 2) Loss of areas of critical intertidal habitats that support bird populations at *Rogerstown Estuary* and *Broadmeadow / Swords Estuary* SPAs; and
- 3) An increased levels of visual and noise disturbance to the birds using the *Rogerstown Estuary* and *Broadmeadow / Swords Estuary* SPAs during construction works, resulting in displacement or other negative effects.

Mitigation measures will be required to avoid these, or any other, significant negative impacts that are identified at project-level Appropriate Assessment. Mitigation measures may include, for example, the following:

- The design of the works should be as flexible as possible with regard to the avoidance or minimisation of impacts. Flexibility in both the final design layout and in the construction methodology that is employed is important. At both Rogerstown Estuary and at Malahide Estuary, the most likely locations for significant habitat loss to occur is to the east of the existing line, particularly to the north of the respective channels where the Natura 2000 sites border the existing line for approximately 0.8km and 1.9km respectively. Examination of aerial photography indicates that Annex I saltmarsh habitats occur at both of these locations. Hence, widening of the railway to the west rather than the east is one obvious way in which it might be possible to avoid or minimise impacts on saltmarsh and other Annex I habitats.
- At the bridging points of the two estuaries, design features can be incorporated into both bridges that will minimise the extent of any in-stream works that are required at the two estuaries, and that will minimise the extent of habitat loss laterally, either side of the bridge. The feasibility of strengthening of the existing structure combined with cantilevered widening should be considered rather than the construction of a new bridge alongside the existing one. If a new bridge is the only feasible engineering option then a long span structure should be considered.
- Both SPAs are designated primarily on the basis of their winter (non-breeding) populations of waders and wildfowl. An obvious measure which can be used to

minimise disturbance to these internationally important bird populations during construction works is to impose seasonal constraints, namely an avoidance of construction work during the winter period, and in all likelihood (pending detailed examination of the seasonal pattern of occurrence of birds) also avoidance of the autumn migration period.

- It will be important to consider changes to the existing sedimentation processes at the two estuaries that could occur as a result of the construction of new pilings, pillars, embankments or any other structures that extend below the high tide mark. Whilst such changes may not necessarily result in negative impacts on the site, in order to make an assessment in this regard, sediment processes will need to be modelled and appropriate ecological expertise employed to predict the impacts that any changes to these processes may have on, for example, Annex I habitats or on intertidal fauna and flora (on which birds depend for food). Ideally, as discussed above, flexibility in the design of the works will allow for a design that does not risk any significant negative impact on sediment processes, or alternatively it may be possible to design mitigation that will avoid or minimise any negative changes that are identified.
- It will be essential to avoid significant negative impacts on water quality during construction works at both estuaries and within their catchments. Details of the measures required will need to be agreed with statutory authorities and monitoring of their implementation during all construction works will be required.

It is considered that this proposal presents a potentially significant threat to the Conservation Objectives of all four of these Natura 2000 sites and mitigation in the form of additional text in the Strategy which acknowledges this potential and also acknowledges the requirement for Appropriate Assessment of any project that results from the inclusion of this Measure in the strategy. The additional text must also make reference to the possibility that in the event that project-level Appropriate Assessment identifies significant negative impacts, and that these are not readily mitigable (see above), then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

Recommended wording for additional text is presented in Section 4.4.

Southern Rail Line Upgrade

Section 4 'Public Transport'; Sub-section 4.3.2 'Heavy Rail' of the Strategy discusses proposals for improvements in the rail infrastructure of the Greater Dublin Area and proposed a major investment in this regard.

Measure RAIL 2 includes inter alia the following:

"The Authority will seek the provision of additional track and other measures on the single rail track south of Bray to facilitate additional rail services to Greystones, Wicklow and Arklow, subject to feasibility, environmental considerations and economic assessment."

This portion of the Southern Rail Line passes through three Natura 2000 sites, namely, Bray Head cSAC, The Murrough Wetlands cSAC, The Murrough SPA and runs within 150m of a fourth: Deputy's Pass Nature Reserve cSAC, and significant negative impacts on any or all of these sites is therefore a possibility.

The most likely impacts that may result from the progression of this scheme are:

- 1) Direct loss of areas of Annex I habitats, including any or all of the following: 'Semi-natural dry grasslands and scrubland facies on calcareous substrates' and 'European dry heaths' at *Bray Head* cSAC; 'Old sessile oak woods with *Ilex* and *Blechnum*' at *Deputy's Pass Nature Reserve* cSAC and 'Mediterranean salt meadows', 'Atlantic salt meadows' 'Calcareous fens with *Cladium mariscus*' at *The Murrough Wetlands* cSAC, all of which are Qualifying Feature of the respective cSACs; and
- 2) An increased levels of visual and noise disturbance to the birds using *The Murrough* SPA during construction works, resulting in displacement or other negative effects.

It is considered that this proposal presents a potentially significant threat to the Conservation Objectives of all four of these Natura 2000 sites and mitigation in the form of additional text which acknowledges this potential and also acknowledges the requirement for Appropriate Assessment of any project that results from the inclusion of this Measure in the strategy. The additional text must also make reference to the possibility that in the event that project-level Appropriate Assessment identifies significant negative impacts, then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

Recommended wording for additional text is presented in Section 4.4.

New Navan Rail Line

Section 4 'Public Transport'; Sub-section 4.3.2 'Heavy Rail' of the Strategy discusses proposals for improvements in the rail infrastructure of the Greater Dublin Area and proposed a major investment in this regard.

Measure RAIL 4 includes *inter alia* the following:

"The Authority will support the provision of a new rail line from Navan to join the recently constructed spur to Dunboyne and Pace, for onward travel to Dublin city centre. The timing of this line construction and the roll out of services will be subject to economic assessment and the timing and scale of development in the Navan area."

Construction of this rail line will involve the renewal of existing crossings of both the River Boyne and the River Blackwater at locations within the *River Boyne and River Blackwater* cSAC. Whilst a preliminary EIA Scoping document for the scheme indicates that use of these crossings will minimise negative impacts on the cSAC, significant negative impacts could nevertheless be identified during Appropriate Assessment of the scheme.

The most likely impact that may result from the progression of this scheme are:

- 1) Direct loss of areas of Annex I habitat, 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*' which is a Qualifying Features of the *River Boyne and River Blackwater* cSAC; and
- 2) Deteriorations in water quality in the river during construction of the scheme which could result in negative effects on the fish species Atlantic salmon and river lamprey

and the mammal species otter, which are Qualifying Features of the *River Boyne and River Blackwater* cSAC.

It is considered that this proposal presents a potentially significant threat to the Conservation Objectives of the *River Boyne and River Blackwater* cSAC and mitigation in the form of additional text which acknowledges this potential and also acknowledges the requirement for Appropriate Assessment of any project that results from the inclusion of this Measure in the strategy. The additional text must also make reference to the possibility that in the event that project-level Appropriate Assessment identifies significant negative impacts, then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

Recommended wording for additional text is presented in Section 4.4.

Leinster Orbital Route

Section 5 'Roads, Freight and Travel Demands Management; Sub-section 5.1.2 'Development of the Road Network, Major Road Proposals' of the Strategy discusses the requirement for new roads in the Greater Dublin Area and whilst stating that "In general there will be a clear presumption against development of new road proposals unless required to address issues such as safety concerns, provision of space for public transport priority or local servicing of development lands that meet Strategy planning objectives." Includes Measure ROAD 3 which inter alia proposes the following:

"The Authority will seek the finalisation of the route corridor for a Leinster Outer Orbital Route and its protection from development intrusion".

Construction of Leinster Orbital Route is likely to include a crossing of the River Boyne and therefore of the *River Boyne and River Blackwater* cSAC. Whilst finalisation of the route corridor for the road is in itself unlikely to result in any negative impact on the site, this measure is seen as a precursor to the likely future construction of the road, and as such will result in a future potential for negative impacts on the site.

The most likely impacts that may result from the future progression of this scheme are:

- 3) Direct loss of areas of Annex I habitats, 'alkaline fens' and 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*' which are Qualifying Features of the *River Boyne and River Blackwater* cSAC; and
- 4) Deteriorations in water quality in the river during construction of the scheme which could result in negative effects on the fish species Atlantic salmon and river lamprey and the mammal species otter, which are Qualifying Features of the *River Boyne and River Blackwater* cSAC.

It is considered that this proposal presents a potentially significant threat to the Conservation Objectives of the *River Boyne and River Blackwater* cSAC, albeit at a currently unspecified time in the future, and mitigation in the form of additional text which acknowledges this potential and also acknowledges the requirement for Appropriate Assessment of any project that results from the inclusion of this Measure in the strategy. The additional text must also make reference to the possibility that in the event that project-level Appropriate Assessment identifies significant negative impacts, then alternatives will need to be examined and in the

absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

Recommended wording for additional text is presented in Section 4.4.

3.2 Natura 2000 Sites Where Indirect Impacts are Considered Possible

The Scoping Report (RPS, 2010a) identified those sites where indirect impacts were considered a possibility. Indirect impacts on Natura 2000 sites can result via a wide range of different pathways, this Section describes the Qualifying Features and Conservation Objectives of those sites where it is considered possible that indirect impacts may occur as a result of infrastructure projects that are progressed as a result of implementation of the Strategy. The number of infrastructure proposals in the Strategy has reduced substantially since the Screening Report was prepared.

Tables 3.2 presents details of the Natura 2000 sites where pathways have been identified by which indirect impacts resulting from implementation of Strategy may occur.

Table 3.2: cSACs and SPAs Where Indirect Impacts are Possible

Site Code	Site Name	Likely Pathways for Impacts
000206	North Dublin Bay cSAC	Potential overall deterioration in water quality in Dublin Bay as a result of project works within Dublin urban area
000210	South Dublin Bay cSAC	
004024	Sandymount Strand / Tolka Estuary SPA	
004006	North Bull Island SPA	

The Qualifying Features of these four Natura 2000 sites are detailed on the NPWS website (<http://www.npws.ie/protectedsites/>). Table 3.3 presents details of the listed Qualifying Features for each of the four sites.

Table 3.3 Qualifying Features of Natura 2000 Sites Where Indirect Impacts are Considered Possible

Site Name	Site Code	Habitats Directive Annex I habitats (with habitat codes)	Habitats Directive Annex II species	SPA 'Features of Interest' (with species codes)
North Dublin Bay cSAC	000206	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide (1140); • Annual vegetation of drift lines (1210); • <i>Salicornia</i> mud and sand (1310); • <i>Spartina</i> swards (1320); • Atlantic salt meadows (1330); • Mediterranean salt meadows (1410); • Embryonic shifting dunes (2110); • Shifting dunes with <i>Ammophila arenaria</i> (2120); • Fixed coastal dunes (2130); • Humid dune slacks (2190); 	Petalwort (<i>Petalophyllum ralfsii</i>) (species code 1395)	n/a
South Dublin Bay cSAC	000210	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide (1140) 		n/a
Sandymount Strand / Tolka Estuary SPA (South Dublin Bay and River Tolka Estuary SPA)	004024	n/a	n/a	<ul style="list-style-type: none"> • Light-bellied Brent Goose (A046) • Oystercatcher (A130) • Ringed Plover (A137) • Golden Plover (A140) • Knot (A143) • Sanderling (A144) • Dunlin (A149) • Bar-tailed Godwit (A157) • Redshank (A162) • Black-headed Gull (A179) • Roseate Tern (A192) • Common Tern (A193) • Arctic Tern (A194) • Wetlands & Waterbirds (A999)

Site Name	Site Code	Habitats Directive Annex I habitats (with habitat codes)	Habitats Directive Annex II species	SPA 'Features of Interest' (with species codes)
North Bull Island SPA	004006	n/a	n/a	<ul style="list-style-type: none"> • Light-bellied Brent Goose (A046) • Shelduck (A048) • Teal (A052) • Pintail (A054) • Shoveler (A056) • Oystercatcher (A130) • Golden Plover (A140) • Grey Plover (A141) • Knot (A143) • Sanderling (A144) • Dunlin (A149) • Black-tailed Godwit (A156) • Bar-tailed Godwit (A157) • Curlew (A160) • Redshank (A162) • Turnstone (A169) • Black-headed Gull (A179) • Wetlands & Waterbirds (A999)

Conservation Objectives are presented on the NPWS website for cSACs and SPAs. (<http://www.npws.ie/search/ProtectedSites.jsp>) The Conservation Objectives for *North Dublin Bay* cSAC are presented below and the wording is identical for South Dublin Bay cSAC, but with Objective 1 (see below) referring only to the habitat type 'Mudflats and sandflats not covered by seawater at low tide (1140)'. For the two SPAs, the website presents the same Conservation Objectives, however the list of Qualifying Interests under Objective 1 is the list of bird species as presented in Table 3.3; with the additional Qualifying Interest 'Wetlands and Waterbirds' for both SPAs.

"European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, is stable or increasing; and
- the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself; and
- the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future; and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC, or the Special Conservation Interests of the SPA:

Mudflats and sandflats not covered by seawater at low tide (habitat code 1140);

Annual vegetation of drift lines (1210);

Salicornia and other annuals colonizing mud and sand (1310);

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (1330);

Petalwort (*Petalophyllum ralfsii*) (species code 1395);

Mediterranean salt meadows (*Juncetalia maritimi*) (1410);

Embryonic shifting dunes (2110);

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) (2120);

Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130); and

Humid dune slacks (2190).

Objective 2: To maintain the extent, species richness and biodiversity of the entire site.

Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities."

A large number of proposals involve construction works within Dublin close to the River Liffey and other watercourses that discharge into Dublin Bay, making indirect impacts on Natura 2000 sites a possibility via impacts on water quality. Such impacts could potentially result in adverse effects on Conservation Objectives 1 or 2 for all four sites, depending upon the location (relative to the habitats and species present) and nature of the impact. Under Conservation Objective 1 (see above) the most vulnerable habitat to water quality impacts is Mudflats and sandflats not covered by seawater at low tide (habitat code 1140) which is a Qualifying Feature of both sites and '*Salicornia* and other annuals colonizing mud and sand'. The transport of any toxic substances (such as cement products or hydrocarbons) or of very large quantities of fines, downstream to either cSAC could result in negative effects on this habitat type. The other Annex I habitat types present in North Dublin Bay cSAC are mainly upper shore habitats where water quality impacts, whilst remaining possible, are less likely.

All of the bird species and the feature 'Wetlands and Waterbirds' that are Qualifying Features of the two SPA sites (see Table 3.3) are to a greater or lesser extent vulnerable to water quality impacts via impacts on inter-tidal feeding areas which will broadly correspond to these two habitat types.

It is difficult to quantify any possible impact in this regard because a large number of unknown variables are involved. The quantity and identity of any released substances cannot easily be predicted, and its impact will vary according to a number of factors such as the rates of flow of watercourses at the time, the presence or absence and stage of life-cycle of any organisms affected, and so on.

The Strategy includes two large-scale proposals for construction work within the urban area of Dublin city; the DART underground between the Northern Line north of Connolly Station and the Kildare Line west of Houston Station (Measure RAIL 1), and the provision of a new road from Dublin Port Tunnel to the Poolbeg area, which will involve a new crossing of the River Liffey. Implementation of the Strategy is also likely to result in the progression of a large number of relatively small scale projects within the urban area of Dublin, some of which may occur close to watercourses. These may include, for example, changes to road layouts, road widening, construction of bus stops, signage, etc. This potential was identified in the Screening Report for this Assessment: "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." (RPS, 2010a).

The Appropriate Assessment Screening Report for South Dublin County Development Plan 2010–2016 discussed similar issues in some detail, and concluded that: "With the implementation of these and other related policies and mitigation measures, any current downstream impact on the Dublin Bay Natura 2000 sites will continue to diminish and any future plans will be rigorously assessed to ensure that there will be no additional negative impacts on water quality leaving the County."

Whilst in themselves it is not considered that these projects are likely to result in significant effects on Natura 2000 sites downstream, the combined effect of these small-scale projects, in-combination with similar projects included in development plans could potentially result in water quality impacts within catchments of the rivers that flow into Dublin Bay. As a consequence of this possibility, the potential for in-combination impacts on Dublin Bay's four Natura 2000 sites, *North Dublin Bay* cSAC, *South Dublin Bay* cSAC, *North Bull Island* SPA and *Sandymount Strand / Tolka Estuary* SPA are considered in Section 3.3 of this Assessment.

3.3 In Combination Effects

Under the provisions of Article 6 of the Habitats Directive, the potential for in-combination effects of the NTA Strategy with other plans or projects must be assessed. This is required to identify situations where effects of the Strategy that are in themselves not significant may, in combination with effects from other plans and projects, become significant. The potential for the Strategy to result in such in-combination effects with other plans and projects is therefore limited to locations where effects of the Strategy have been identified.

Sections 3.1 and 3.2 of this Assessment identify the Natura 2000 sites where potential impacts (significant or otherwise) may occur as a result of implementation of the NTA Strategy. Other plans and projects that might have impacts on these sites have been examined in order to identify any possible in-combination effects. Relevant plans include the Regional Planning Guidelines for the Greater Dublin Area 2010-2022 and all of the County Development Plans within the Greater Dublin Area, all of which have been reviewed. Where available, Strategic Environmental Assessment Environmental Reports, Appropriate Assessment Screening Reports and Natura Impact Statements for these plans have also been reviewed.

Tables of the results of the assessment of possible in-combination effects are presented in Appendix 2. The following Sections discuss the potentially significant in-combination effects that have been identified as a result of the assessment.

Rogerstown Estuary cSAC, Rogerstown Estuary SPA, Malahide Estuary cSAC and Broadmeadow / Swords Estuary SPA

Section 3.1 of this Assessment has identified the possibility of significant negative impacts on these sites as a result of the proposed upgrade to the Northern Rail Line. Mitigation in the form of additional text has been proposed for inclusion in the Strategy (see Section 4.4). Potential for impacts on these sites has also been identified in the AA for the Regional Planning Guidelines and in the AA for Fingal County Development Plan.

The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan. No specific reference to *Rogerstown Estuary cSAC*, *Rogerstown Estuary SPA*, *Malahide Estuary cSAC* or *Broadmeadow / Swords Estuary SPA* is made in the Stage 2 Assessment of the RPG, however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Northern Rail Line.

The MOLAND (Cause – Pathway – Effect model) model, used in the RPG Appropriate Assessment indicates that under all scenarios there will continue to be pressure on the coastal sites in particular. Coastal cSACs tended to be more heavily encroached upon than non-coastal cSACs, for example Rogerstown Estuary, Malahide Estuary, Dundalk Bay, Baldoyle Bay, the Murrough Wetlands and Coastal sections of the River Boyne.

The AA for the Draft Fingal CDP identified a number of policies which had the potential to impact on the sites including, for *Rogerstown Estuary cSAC* and *Rogerstown Estuary SPA*, proposals for a continuous network of signed pathways around the estuary; a marina within the estuary and auxiliary and associated facilities; the development of Donabate Southern bypass close to the boundaries of both sites; the provision of a new Regional Parks immediately adjacent of the boundaries of the sites and upgrading of the railway line; and for *Malahide Estuary cSAC* and *Broadmeadow / Swords Estuary SPA* proposals for a continuous network of signed pathways around the estuary; road and footpath developments in Donabate and Portrane and upgrading of the railway line.

Hence, the potential direct impacts (land take and fragmentation) on these Natura 2000 sites that have been identified in Section 3.1 of this assessment could be accentuated by in-combination effects resulting from encroachment into the sites of other projects. Such potential cumulative impacts must be fully addressed in the project-level Appropriate Assessment for the proposed upgrades to the Northern Railway Line (see Section 4.4).

Bray Head cSAC

Section 3.1 of this Assessment has identified the possibility of significant negative impacts on this site as a result of the proposed upgrade to the Southern Rail Line. Mitigation in the form of additional text has been proposed for inclusion in the Strategy (see Section 4.4).

RPS have identified the following policies in Wicklow County Development Plan 2010 – 2015 that may result in cumulative impacts on Bray Head cSAC when considered in-combination with proposed upgrades to the Southern Line Railway:

CW5: "To facilitate the development of a coastal cycling and walking route."

PT3: "To continue to work with Iarnród Éireann on the improvement of mainline train and DART services into Wicklow and in particular, to facilitate all options available to increase capacity through Bray Head and along the coastal route south of Greystones."

In addition, the Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan. No specific reference to Bray Head cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line Railway.

The heath and grassland habitats at *Bray Head* cSAC are threatened by reclamation for agriculture and also by frequent burning. The site is a popular recreational area and is especially used by walkers. It is considered that loss of habitat as a result of construction of a coastal footpath in combination with any loss of habitat resulting from upgrades to the Southern Rail Line could result in significant loss of habitat within the cSAC; and this needs to be taken account of in any Appropriate Assessment at project level (see Section 4.4).

North Dublin Bay cSAC, North Bull Island SPA, South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA

Section 3.2 of this Assessment has identified the potential for indirect impacts on these four Natura 2000 sites which are located in Dublin Bay resulting from deterioration in water quality entering the bay. The Appropriate Assessment Screening Report for South Dublin County Development Plan 2010–2016 discussed similar issues in some detail, stating that: "Poor water quality originating within South Dublin County and entering Dublin Bay is deemed to be the County's principal potential threat to the conservation objectives of the Dublin Bay Natura 2000 sites. In conjunction with the inputs from the three other Dublin Local Authorities of Fingal, Dublin City, and Dun Laoghaire-Rathdown, in addition to that from Kildare, this includes both the direct run-off into the streams and rivers that eventually empty into the Bay and also the volume of waste water requiring treatment in Dublin City prior to discharge into the Bay. The Dublin City water treatment facilities are subject to separate operational consent and licensing procedures which are themselves required to be compliant with all applicable environmental Regulations and Directives, including the Water Framework and Habitats Directive." And concluding that "With the implementation of these and other related policies and mitigation measures, any current downstream impact on the Dublin Bay Natura 2000 sites will continue to diminish and any future plans will be rigorously assessed to ensure that there will be no additional negative impacts on water quality leaving the County."

This current Assessment reaches a similar conclusion, i.e. that safeguards in the form of enforcement of Water Framework Directive regulations, discharge licensing, other environmental regulations and compliance obligations and project-level Appropriate Assessment, are currently proving to be successful in avoiding deteriorations in water quality in Dublin Bay and will continue to do so into the future.

The Murrough Wetlands cSAC and The Murrough SPA

Section 3.1 of this Assessment has identified the possibility of significant negative impacts on this site as a result of the proposed upgrade to the Southern Rail Line. Mitigation in the form of additional text has been proposed for inclusion in the Strategy (see Section 4.4).

Potential for impacts on these sites has also been identified in the AA for the Regional Planning Guidelines. The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan. No specific reference to *The*

Murrough Wetlands cSAC and *The Murrough* SPA is made in the Stage 2 Assessment of the RPG however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line.

The MOLAND (Cause – Pathway – Effect model) model, used in the RPG Appropriate Assessment, indicates that under all scenarios there will continue to be pressure on the coastal sites in particular. Coastal cSACs tended to be more heavily encroached upon than non-coastal cSACs, for example Rogerstown Estuary, Malahide Estuary, Dundalk Bay, Baldoyle Bay, the Murrough Wetlands and Coastal sections of the River Boyne.

The AA for Wicklow County Development Plan 2010 - 2015 identified recent farming and drainage practices and afforestation at the Murrough SPA and cSAC as having, “greatly reduced the area and quality of the wetlands habitats - the area between Kilcoole and Newcastle is particularly affected. Some levelling of the sand hills near Killougher has also occurred. Pollution, reclamation and further drainage would adversely affect this site.” The AA identified the following policies as having potential to result in direct effects to *The Murrough Wetlands* cSAC and *The Murrough* SPA:

CW5 ‘To facilitate the development of a coastal cycling and walking route.’

PT2 ‘To promote the development of transport interchanges and ‘nodes’ where a number of transport types can interchange with ease. In particular to facilitate the development of park and ride facilities at appropriate locations along strategic transport corridors to enhance existing parking facilities at and/or the improvement of bus links to the train stations in Bray, Greystones, Wicklow and Arklow.’

PT3 ‘To continue to work with Iarnród Éireann on the improvement of mainline train and DART services into Wicklow and in particular, to facilitate all options available to increase capacity through Bray Head and along the coastal route south of Greystones.’

The habitats at *The Murrough Wetlands* cSAC are threatened by reclamation and increased human activity in the area may result in increased disturbance to birds using *The Murrough* SPA. It is considered that loss of habitat as a result of construction of a coastal footpath, and pressures from agriculture and forestry, in combination with any loss of habitat resulting from upgrades to the Southern Rail Line could result in significant loss of habitat within the cSAC and the SPA, and significant disturbance to birds in the SPA; and this needs to be taken account of in any Appropriate Assessment at project level (see Section 4.4).

Deputy's Pass Nature Reserve cSAC

Section 3.1 of this Assessment has identified the possibility of significant negative impacts on these sites as a result of the proposed upgrade to the Southern Rail Line. Mitigation in the form of additional text has been proposed for inclusion in the Strategy (see Section 4.4).

The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan. No specific reference to *Deputy's Pass Nature Reserve* cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line Railway.

It is considered possible that pressures from agriculture and forestry, in combination with any loss of habitat resulting from upgrades to the Southern Rail Line could result in significant loss of habitat within the cSAC and this loss needs to be taken account of in any Appropriate Assessment at project level (see Section 4.4).

River Boyne and River Blackwater cSAC

Potential impacts on this site in the form of habitat loss and deterioration in water quality have been identified as potential significant negative impacts associated with progression of the New Navan Rail Line and Leinster Orbital Route road projects that are proposed by the Strategy, both of which will require a crossing of the Boyne (see Section 3.1). Mitigation in the form of additional text has been proposed for inclusion in the Strategy (see Sections 4.4 and 4.5).

Potential for impacts on these sites has also been identified in the AA for the Regional Planning Guidelines. The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan. No specific reference to *River Boyne and River Blackwater cSAC* is made in the Stage 2 Assessment of the RPG however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the proposed new Navan Rail Line and / or with the Leinster Orbital Route.

The MOLAND (Cause – Pathway – Effect model) model, used in the RPG Appropriate Assessment, indicates that under all scenarios there will continue to be pressure on the coastal sites in particular. Coastal cSACs tended to be more heavily encroached upon than non-coastal cSACs, for example Rogerstown Estuary, Malahide Estuary, Dundalk Bay, Baldoyle Bay, the Murrough Wetlands and Coastal sections of the River Boyne. The model also indicated that some inland cSAC sites will also experience increased development pressure- one being the *River Boyne and River Blackwater cSAC*.

No AA is available for Meath County Development Plan 2007 to 2013, however an AA for a variation to the County Development Plan concluded that, “The proposed variation is a response to the current economic climate and is intended to provide the housing section with greater flexibility in administration of Part V. As a result there will be a neutral impact on Natura 2000 sites as the quantum of land identified for development remains unchanged, instead the method of providing and the ratio of affordable and social housing is altered” (Meath County Council, July 2009).

To avoid generalised negative impacts on water quality the following mitigation/policy is contained within the County Development Plan:

“To maintain, improve and enhance the environmental and ecological quality of our waters by implementing the Water Quality Management Plans that will emerge from the Eastern, Neagh Bann and Shannon River Basin Districts Projects in co-operation with all organisations and major stakeholders for the protection of drinking, ground, surface, coastal and estuarine waters as part of the implementation of the EU Water Framework Directive.”

It is considered possible that general pressures on water quality in the Boyne and Blackwater catchments resulting from, agriculture, forestry, housing, industry, etc, in combination with any deterioration in water quality resulting from construction activity during construction of either the new Navan Rail Line or the Leinster Orbital Route, could potentially result in significant negative impacts on the cSAC and this needs to be taken account of in any Appropriate Assessment at project level (see Sections 4.4 and 4.5).

3.4 Other Possible Impacts Identified in the AA Screening Report

The Screening Report for this Assessment (RPS, 2010a) identified a number of other possible or likely impacts to Natura 2000 sites that may result from implementation of the Strategy.

Increases in Disturbance and Other Effects Resulting from Increased Visitor Usage of Sites

Implementation of the strategy is likely to increase overall mobility of both the population of the Greater Dublin Area and of visitors to the area. Increased mobility is likely to increase the number of people visiting locations that are designated as Natura 2000 sites, particularly those locations which are perceived as or promoted as leisure destinations, and possible negative impacts resulting from increased visitor numbers has been identified as a potential threat to many of the regions Natura 2000 sites (RPS, 2010a).

Whether or not a Natura 2000 sites are particularly likely to experience negative impacts as a result of increased visitor pressure will be a function of changes to their accessibility as a result of improved transport services and of their attractiveness to people as a leisure destination; both of these factors are very difficult to quantify.

Some potential for increased visitor pressure at *Bray Head* cSAC has been identified in the AA for Wicklow County Development Plan, and it is considered that possible impacts resulting from upgrades to the Southern Rail Line could result in some in-combination impact on this site (see Section 3.3).

An analysis of Natura 2000 sites where impacts are considered most likely has not identified any other Natura 2000 sites where this is likely to result in significant negative impacts. No element in the Strategy is considered likely, for example, to greatly increase the number of visitors to the Wicklow Mountains or to sensitive coastal Natura 2000 sites such as the area of The Murrough.

Eastern Bypass

The Screening Report for this Appropriate Assessment (RPS, 2010a) identified the proposed Dublin Eastern Bypass as a scheme that could result in direct negative impacts on the conservation of objectives of the four Natura 2000 sites located in Dublin Bay; North Dublin Bay cSAC, North Bull Island SPA, South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA.

Subsequent to completion of the Screening Report (RPS, 2010a), the proposal has been altered, and the Strategy's recommendation is now limited to the retention of a route corridor for the sections of the Eastern Bypass that cross Dublin Bay. It is not considered that retention of the route, could in itself result in any negative impact on the sites, but any future development of the route corridor has substantial potential to result in significant negative impacts on the conservation objectives of Nature 2000 sites, specifically habitat loss and disturbance to fauna in, *North Dublin Bay* cSAC, *North Bull Island* SPA, *South Dublin Bay* cSAC and *Sandymount Strand / Tolka Estuary* SPA. This will need to be addressed through project-level Appropriate Assessment as and when any future proposal is progressed. It is considered that negative impacts could best be avoided by the development of a tunnel-based design. An addition to the text of the Strategy acknowledging this situation is recommended (see Section 4.5).

4. RECOMMENDED MITIGATION MEASURES

Section 3 of this Report has identified elements in the NTA Strategy that it is considered may result in significant negative impacts on Natura 2000 sites. In order to ensure that implementation of the NTA Vision 2030 Greater Dublin Area Transport Strategy does not result in significant negative impacts on the conservation objectives of any Natura 2000 site, it is recommended that additional text is included in the Sections of the Strategy that are indicated. Appropriate wording for the recommended additional text is suggested in the following sections.

4.1 Additional Text Recommended for Inclusion in Chapter 7

The Strategy has been informed by Strategic Environmental Assessment (SEA) and Habitats Directive Appropriate Assessment (AA) throughout its development. These environmental assessments are required under the provisions of Article 3(2) of the EU 'SEA Directive'¹ and Article 6 (3 and 4) of the EU 'Habitats Directive'² respectively, and they have been conducted in tandem with the development of the Strategy.

SEA provides for an early consideration of environmental issues in the planning process and creates an opportunity for environmental factors to be considered explicitly alongside other factors such as social, technical or economic aspects. It also gives strategy makers an opportunity to assess the cumulative environmental impacts which may be associated with several elements of the Strategy in combination. As such, SEA is an essential tool to help improve the strategy by evaluating, at the earliest appropriate stage, the potential environmental effects of the strategy before it is adopted. It also gives stakeholders an opportunity to help shape the Strategy through comment at the initial planning stages and allows them to be kept informed of decisions and of how these decisions were made.

AA focuses on ensuring that the Strategy does not result in negative impacts on the conservation objectives of EU biodiversity conservation designations within, or close to, the Greater Dublin Area, namely, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), collectively known as Natura 2000 sites.

Under the provisions of Article 6 of the EU Habitats Directive, no project arising from the Greater Dublin Area Transport Strategy which is likely to have a significant impact on a Natura 2000 site, when assessed by consideration of its implications of the site's conservation objectives, can proceed unless it has been subject to an Appropriate Assessment. If that assessment concludes that the project would have an adverse effect on the integrity of the site it can only proceed if it is demonstrated that there is an absence of alternative solutions and that there are imperative reasons of overriding public interest for the project to proceed. In addition, compensatory measures must be implemented to maintain the coherence of the Natura 2000 network.

As required under the respective EU Directives, an SEA Environmental Report (ER) and an AA Natura Impact Statement (NIS) have been prepared which present the findings of the two assessments.

¹ European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment

² Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

4.2 Additional Text Recommended for Inclusion in Chapter 8 ‘Planning for Sustainable Living’; Sub-section 8.6 ‘Environmental Considerations’

The integrity of Natura 2000 sites should be protected at all levels in the land use planning hierarchy; this is achieved primarily through the Appropriate Assessment process. The findings of the Appropriate Assessment of the planning and land use policies and objectives proposed in this Strategy are presented in the Natura Impact Statement; it is not anticipated that significant impacts on the conservation objectives of any Natura 2000 site will result from the implementation of these policies and objectives.

4.3 Additional Text Recommended for Inclusion in Chapter 9 ‘Walking and Cycling’; Sub-section 9.5.2 ‘Recreational Cycling’

Appropriate Assessment of this Strategy has identified the possibility that development of some sections of the proposed Sutton to Sandycove cycle track may result in significant negative impacts on the conservation objectives of Nature 2000 sites. The northern part of the route, to the north of the River Liffey, is the subject of a current planning application and its development will therefore not be directly influenced by this Strategy however the southern part of the route is at an early planning stage and the design is yet to be finalised. There is potential for the development of this southern part to result in habitat loss and disturbance to fauna in *South Dublin Bay* cSAC and *Sandymount Strand / Tolka Estuary* SPA. This is discussed in greater detail in the Natura Impact Statement and will need to be addressed through project-level Appropriate Assessment. Ideally, significant negative impacts will be avoided through design and mitigation however if this is not possible then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

4.4 Additional Text Recommended for Inclusion in Chapter 10 ‘Public Transport’; Sub-section 10.3.3 ‘Heavy Rail’

Appropriate Assessment of this Strategy has identified the possibility that ‘double tracking’ of the Northern Line may result in significant negative impacts on the conservation objectives of Nature 2000 sites; specifically, habitat loss and disturbance to fauna in *Malahide Estuary* cSAC, *Broadmeadow / Swords Estuary* SPA, *Rogerstown Estuary* cSAC and *Rogerstown Estuary* SPA, where existing rail bridges are likely to require widening. This is discussed in greater detail in the Natura Impact Statement and will need to be addressed through project-level Appropriate Assessment. Ideally, significant negative impacts will be avoided through design and mitigation however if this is not possible then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

and:

Completion of the new Navan Railway Line would necessitate the renewal of the existing crossings of the Rivers Boyne and Blackwater and therefore has the potential to result in negative impacts on the conservation objectives of the River Boyne and River Blackwater cSAC. This will need to be addressed through project-level appropriate assessment at the earliest possible stage in the project planning process, and a design of the re-used bridging points of the Boyne and Blackwater in a manner which minimises the potential for impacts on the cSAC should be considered as a key constraint in the scheme. Ideally, significant negative impacts will be avoided through design and mitigation however if this is not possible then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme

and to implement compensatory measures to offset any significant negative impacts that are identified.

and:

Appropriate Assessment of this Strategy has identified the possibility that the construction of 'passing loops' or other additional track along the Southern Line may result in significant negative impacts on the conservation objectives of Nature 2000 sites; specifically, habitat loss and disturbance to fauna at, *Bray Head* cSAC, *The Murrough Wetlands* cSAC, *The Murrough* SPA and *Deputy's Pass Nature Reserve* cSAC. This is discussed in greater detail in the Natura Impact Statement and will need to be addressed through project-level Appropriate Assessment. Ideally, significant negative impacts will be avoided through design and mitigation, the most straightforward solution being the locating of sections of new track in areas remote from these Natura 2000 sites, however if this is not feasible then alternatives will need to be examined and in the absence of these, there will be a requirement to demonstrate imperative reasons of overriding public interest for the scheme and to implement compensatory measures to offset any significant negative impacts that are identified.

4.5 Additional Text Recommended for Inclusion in Chapter 11 'Roads, Freight and Travel Demands Management; Sub-section 11.1.2 'Development of the Road Network, Major Road Proposals'

Whilst the Strategy's recommendation is limited to the retention of a route corridor for the sections of the Eastern Bypass that cross Dublin Bay, it should nevertheless be noted that development of the route corridor has substantial potential to result in significant negative impacts on the conservation objectives of Nature 2000 sites, specifically habitat loss and disturbance to fauna in, *North Dublin Bay* cSAC, *North Bull Island* SPA, *South Dublin Bay* cSAC and *Sandymount Strand / Tolka Estuary* SPA. This will need to be addressed through project-level Appropriate Assessment as and when any future proposal is progressed. It is considered that negative impacts could best be avoided by the development of a tunnel-based design.

and:

Depending upon the route that is selected, completion of the Leinster Orbital Route may necessitate the crossing of the River Boyne and therefore has the potential to result in significant negative impacts on the conservation objectives of the *River Boyne and River Blackwater* cSAC; and may pass close to other Natura 2000 sites such as *Rye Water Valley / Carton* cSAC. This will need to be addressed through project-level Appropriate Assessment at the earliest possible stage in the project planning process, and the selection of a route which minimises the potential for impacts on the cSAC should be considered as a key constraint in any scheme.

5. CONCLUSIONS

This Report presents the results of Stage 2 of the Habitats Directive Appropriate Assessment (AA) of the National Transport Authority's (NTA), *Vision 2030: Greater Dublin Area Transport Strategy*.

The Scope of the Strategy is relatively broad and relates to all aspects of transport strategy within the Greater Dublin Area, which covers all of Counties of Dublin, Wicklow, Kildare and Meath; the same area as is covered by the Regional Planning Guidelines. The Strategy covers the period 2010 to 2030. The Strategy focuses on a modal shift towards public transport, cycling and walking and away from the private motor car through a broad set of transport and planning policies and is informed in this regard to a high degree by the Government's 'Smarter Travel: A Transport Policy for Ireland' policy and by the 'National Climate Change Strategy'.

The number of infrastructure projects included in the final Strategy has reduced substantially from the drafts on which the Screening Report for this assessment (RPS, 2010a) was based, and further details on the projects has become available. As a result, the number of Natura 2000 sites where impacts are considered possible has reduced substantially since the Screening Assessment. A total of 13 sites are considered in this Stage 2 Assessment (see Table 3.1 and Appendix 1).

Possible direct, indirect and 'in-combination' effects have been examined and the likely significance of effects has been assessed (see Section 3). The assessment has identified five prospective infrastructure projects that are included in the Strategy which could potentially result in significant direct impacts on Natura 2000 sites (see Section 3.1) and a number of in-combination effects have been identified that could potentially exacerbate these impacts (see Section 3.3). No in-combination effects nor indirect effects have been identified that do not relate to Natura 2000 sites or types of impact that have already been identified.

Mitigation in the form of amendments to the text of the Strategy has been proposed in regard to all of the identified potentially significant impacts (see Section 4). The five projects where mitigation in the form of amendments to the text is proposed are as follows:

- Development of the proposed Sutton to Sandycove Cycle Track; Measure WCY 13 of the Strategy (see Section 4.3);
- Upgrades to the Northern Rail Line Upgrade; Measure RAIL 2 of the Strategy (see Section 4.4);
- Upgrades to the Southern Rail Line Upgrade; Measure RAIL 2 of the Strategy (see Section 4.4);
- ;
- Development of the proposed new Navan Rail Line; Measure RAIL 4 of the Strategy (see Section 4.4); and
- Development of the proposed Leinster Orbital Route road; Measure ROAD 3 of the Strategy (see Section 4.5).

In addition to these amendments to the text relating to specific projects, mitigation in the form of amendments to the text of the Strategy is also proposed in regard to the following:

- Additional Text describing the way in which the Strategy has been Appropriately Assessed throughout the period of its development (see Sections 5.1 and 5.2);
- Additional text discussing the retention of a route corridor for the sections of the Eastern Bypass that cross Dublin Bay. Whilst the Strategy's recommendation is limited to the retention of a route corridor for this proposal, and it is not considered that retention of the route could in itself result in any negative impact on Natura 2000 sites, it is considered that this inclusion in the Strategy requires mitigation in the form of additional text highlighting the potential for negative impacts of any future project (see Sections 3.2 and 4.5).

5.1 Concluding Statement

The NTA have reviewed the mitigation measures proposed in Section 4 of this NIS and have developed amendments to the text of the final version of their *Vision 2030: Greater Dublin Area Transport Strategy* which effectively implements all of the mitigation measures that have been proposed. The final version of the Strategy is considered to be compliant with the requirements of Article 6 of the EU Habitats Directive, and by adopting the Strategy, the National Transport Authority is therefore considered to be in compliance with the Requirements of Article 6 of the EU Habitats Directive in its preparation of the Strategy.

This NIS has identified a number of projects that are included in the Strategy which have the potential to result in significant negative impacts on Natura 2000 sites (see Section 3). It is considered that in all but one case, avoidance of such impacts should be achievable, and details of the measures required to achieve this will be developed through the process of project-level Environmental Impact Assessment and Appropriate Assessment. In the case of the proposed upgrade of the Northern Rail Line there is currently insufficient project design detail to reach such a conclusion with certainty and it is considered that there remains a possibility that it may not be possible, despite the implementation of mitigation measures (see Section 3.1), to avoid impacts on the Conservation Objectives of one or more of the Natura 2000 sites: *Malahide Estuary* cSAC, *Broadmeadow / Swords Estuary* SPA, *Rogerstown Estuary* cSAC and *Rogerstown Estuary* SPA. It is currently unknown whether or not impacts on any of these sites may be of significance in terms of the integrity of their structure and function. This will be determined through project level Appropriate Assessment at a time when design proposals become available. If at project-level Appropriate Assessment it is deemed that there may be significant impacts on the integrity of any of these sites that cannot be mitigated, then in order for the project to proceed, alternative solutions must be examined and Imperative Reasons of Over-riding Public Interest (IROPI) will need to be demonstrated and suitable compensatory measures, probably in the form of the provision of compensatory habitat, will need to be devised.

REFERENCES

DoEHGL (2009). *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government.

(EC, 2002). *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*. European Commission.

RPS (2010a). *2030 Vision: Greater Dublin Area Transport Strategy; Habitats Directive Assessment (HDA) Screening Report*. RPS Group, May 2010.

RPS (2010b). *2030 Vision: Greater Dublin Area Transport Strategy; Habitats Directive Assessment (HDA)) Stage 2 Briefing Report*. RPS Group, June 2010.

Appendix 1

Qualifying Features of Natura 2000 Sites

Table A1.1: Qualifying Features of cSACs Within the Greater Dublin Area Where Possible Impacts Have Been Identified

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
000205	Malahide Estuary	2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (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)		
000206	North Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide	1395	<i>Petalophyllum ralfsii</i>
		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 <i>Ammophila arenaria</i> (white dunes)		
		2130	Fixed coastal dunes with herbaceous vegetation (grey dunes)		
		2190	Humid dune slacks		
		1320	Spartina swards (Spartinion maritimae)		
000210	South Dublin Bay	1140	Mudflats and sandflats not covered by seawater at low tide		
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 <i>Cladium mariscus</i> and species of the Caricion davallianae		
002299	River Boyne and River Blackwater	7230	Alkaline fens	1106	<i>Salmo salar</i>
		91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	1099	<i>Lampetra fluviatilis</i>
				1355	<i>Lutra lutra</i>
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		

Site Code	Site Name	Habitat Code	Habitat	Species Code	Species
			(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)		
000717	Deputy's Pass Nature Reserve	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles		

Table A1.2: Qualifying Features of SPAs Within the Greater Dublin Area Where Possible Impacts Have Been Identified

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.
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.
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.
004024	South Dublin Bay and River Tolka Estuary	Roseate Tern, Common Tern, Arctic Tern, Little Tern, Bar-tailed Godwit, 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.
004186	The Murrough	Red-throated Diver	Wintering Waterbirds	Brent Goose, Greylag Goose, Wigeon, Teal, Black-headed Gull, 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.

Appendix 2

Assessment of Possible In-Combination with Other Plans and Projects

Table A2.1 to A2.8 present details of the findings of the 'in-combination' element of the Appropriate Assessment. Results are discussed in Section 3.3 of this main Report.

Table A2.1 Possible In-Combination Impacts Identified for Bray Head cSAC

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified by RPS Review of RPG	
Southern Line Railway	Direct land take; Fragmentation; Disturbance to fauna during construction.	Wicklow County Development Plan 2010-2015	None ²	RPS have identified the following policies in the CPD that may result in impacts to Bray Head cSAC. See Section 3.5 for details. CW5 "To facilitate the development of a coastal cycling and walking route." And PT3 "To continue to work with Iarnród Éireann on the improvement of mainline train and DART services into Wicklow and in particular, to facilitate all options available to increase capacity through Bray Head and along the coastal route south of Greystones."	The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan. No specific reference to Bray Head cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line Railway. See Section 3.5 for details.	None	No others identified

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

² The AA for the CDP states that: "The Plan has been formulated to ensure that uses, developments and effects arising from permissions based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant effects on the integrity of any Natura 2000 sites." (AA, CAAS, 2010). A Stage 2 AA was not required.

Table A2.2 Possible In-Combination Impacts Identified for Deputy's Pass Nature Reserve cSAC

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Southern Line Railway	Direct land take; Fragmentation; Disturbance to fauna during construction.	Wicklow County Development Plan 2010-2015	None ²	No additional impacts were identified.	The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan. No specific reference to Deputy's Pass Nature Reserve cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line Railway. See Section 3.5 for details.	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

² The AA for the CDP states that: "The Plan has been formulated to ensure that uses, developments and effects arising from permissions based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant effects on the integrity of any Natura 2000 sites." (AA, CAAS, 2010). A Stage 2 AA was not required.

Table A2.3 Possible In-Combination Impacts Identified for Malahide Estuary cSAC and Broadmeadow / Swords Estuary SPA

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Northern Line Railway	Direct land take; Fragmentation; Disturbance impacts during construction; Water Quality.	Draft Fingal County Development Plan 2011 - 2017	The AA screening 'screened-in' both sites due to identified potential impacts in the form of reduction in habitat area, disturbance to key species, habitat or species fragmentation, reduction in diversity of species and Changes in Key Indicators of Conservation Value (Water Quality Etc.) A number of specific policies were identified that might result in negative impacts and these were mitigated by proposals for amendments to policies. The identified policies were as follows: Chapter 1; Objective Donabate 3, to: "Develop a continuous network of signed pathways around Donabate Peninsula and linking the Peninsula to Malahide and Rush via the Rogerstown and Malahide estuaries whilst ensuring the protection of designated sites." Sheet 7 (Donabate and Portrane), Objectives 150 and 151 "Development in the area shall be conditional on the satisfactory outcome of the detailed topographical, hydrological and visual/landscape/environmental impact assessments. The layout and design of the future residential area shall provide for visual mitigation measures including substantial set backs from the	None	The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan. No specific reference to Malahide Estuary cSAC or Broadmeadow / Swords Estuary SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Northern Rail Line Railway. See Section 3.5 for details	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			road boundaries (Hearse Road & Coast Road & Balcarrick Road). The route of the Donabate Southern bypass shall be conditional on the satisfactory outcome of detailed topographical, and visual/landscape impact assessments in tandem with these assessments a Traffic Management Plan shall be prepared for the town centre. The Coast Road to continue to function only as a local service access with traffic management. Viewing lay-bys to be provided along the road. The area alongside the southwestern and southern boundaries including the River Pill and bridge to form part of the pedestrian walkway/wildlife area. An independent pedestrian walkway and wildlife area to be reserved along the railway embankment and alongside the southwestern and southern boundaries, to link with the Broadmeadow and the Malahide Estuaries, Newbridge Demesne and railway station. Natural/neutral colours to be used in building materials."				

Table A2.4 Possible In-Combination Impacts Identified for North Dublin Bay cSAC and North Bull Island SPA

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
None specifically	Generalised water quality issues resulting from upstream construction and development activity within Dublin urban area (see Section 3.2)	Dublin City Council Development Plan 2011-2017	<p>The AA for the CPD 'screened-in' North Dublin Bay cSAC and North Bull Island SPA for the following potential impacts: Disturbance to key species.</p> <p>Mitigation took the form of a proposed additional policy in the plan: GC31 "That any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an appropriate assessment in accordance with Article 6(3) of the Habitats Directive."</p> <p>Main Threats identified include Loss of habitat due to coastal developments, recreation trampling, overgrazing, spread of invasive species, Natural erosion, Reclamation of land.</p> <p>The following policies were identified as having potential impacts and were mitigated by including a requirement for project-level AA: GC022 "To support the investigation of the restoration/renovation of weirs on the</p>	None	<p>The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan.</p> <p>No specific reference to North Dublin Bay cSAC or North Bull Island SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Northern Rail Line Railway.</p> <p>See Section 3.5 for</p>	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			<p>Dodder River subject to the provision that the restoration work does not add to flooding risk"; GC043 "To continue to develop a linear park along the banks of the river Tolka in particular on institutional lands in the Drumcondra area as they are developed";</p> <p>GC045 "For the River Dodder: (a) To develop a framework plan to conserve and improve the area along the Dodder between Ringsend and Orwell Bridge (Waldron's Bridge) (b) To take into public ownership/create Rights of Way along and across the Dodder at key points and to maintain existing bridges for pedestrians and cycle traffic. Subject to sources of funding, new additional bridges shall be sought (c) To ensure that lands adjoining the Dodder river and zoned Z9 shall be the subject of a specific site objective for their incorporation into a linear park along the Dodder river and as part of the Dodder Linear Riverwalk (d) To secure maximum public access and ownership of the walkway along the Dodder river within the city area and to maximise co-operation with the relevant adjoining local authorities towards preparing and then implementing a River access, Improvement plan and Environmental Management Plan for the entire length of the river";</p> <p>RE016 "To examine the feasibility of a cruise terminal in the Poolbeg area and</p>		details.		

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			Dublin Port, including a review of the current disembarking point and its connectivity with the city and the development of tour options for visitors within the city and set out recommendations."				
None specifically	Generalised water quality issues resulting from upstream construction and development activity within Dublin urban area (see Section 3.2)	South Dublin County Council Development Plan 2010-2016	<p>Poor water quality originating within South Dublin County and entering Dublin Bay is deemed to be the County's principal potential threat to the conservation objectives of the Dublin Bay Natura 2000 sites. The AA concludes that provided that the policies and objectives of the South Dublin Bay Plan 2010-2016 with respect to water quality improvement and conservation are implemented impacts to water quality is expected to improve during the life time of the plan.</p> <p>No significant impacts from policies were identified.</p>				

Table A2.5 Possible In-Combination Impacts Identified for River Boyne and River Blackwater cSAC

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Navan Line Railway	Direct land take; Fragmentation; Water Quality.	Meath County Development Plan 2007-2013	<p>No AA is available for this CDP; however an AA for a variation to the County Development Plan concluded:</p> <p>“The proposed variation is a response to the current economic climate and is intended to provide the housing section with greater flexibility in administration of Part V. As a result there will be a neutral impact on Natura 2000 sites as the quantum of land identified for development remains unchanged, instead the method of providing and the ratio of affordable and social housing is altered” (Meath County Council, July 2009).</p> <p>The SEA ER provides a Map showing Future Development and Constraints and Impact Zones and states that, “the area between Slane and the Boyne Estuary where Urbanisation originating from Drogheda will increasingly impinge</p>	No specific CDP policies have been identified which could result in a cumulative impact with the Navan Line Railway.	<p>The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan.</p> <p>No specific reference to River Boyne and River Blackwater cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Navan Rail Line Railway.</p> <p>See Section 3.5 for details</p>	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			on a very dense cluster of environmental sensitivities – many of which enjoy formal protection due to designations.”				
Leinster Orbital Route	Direct land take; Fragmentation; Water Quality.	Meath County Development Plan 2007-2013	<p>No AA was prepared for this CDP; however an AA for a variation to the County Development Plan concluded:</p> <p>“The proposed variation is a response to the current economic climate and is intended to provide the housing section with greater flexibility in administration of Part V. As a result there will be a neutral impact on Natura 2000 sites as the quantum of land identified for development remains unchanged, instead the method of providing and the ratio of affordable and social housing is altered” (Meath County Council, July 2009).</p> <p>The SEA ER provides a Map showing Future Development and Constraints and Impact Zones and states that, “the area between Slane and the Boyne Estuary where Urbanisation originating from Drogheda will increasingly impinge on a very dense cluster of environmental</p>	No specific CDP policies have been identified which could result in a cumulative impact with the Leinster Orbital Route	<p>The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan.</p> <p>No specific reference to River Boyne and River Blackwater cSAC is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Leinster Orbital Route.</p> <p>See Section 3.5 for details</p>	None	None

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Developm ent Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			sensitivities – many of which enjoy formal protection due to designations.”				

Table A2.6 Possible In-Combination Impacts Identified for Rogerstown Estuary cSAC and Rogerstown Estuary SPA

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Northern Line Railway	Direct land take; Fragmentation; Disturbance impacts during construction; Water Quality	Draft Fingal County Development Plan 2011 - 2017	The AA screening 'screened-in' both sites due to identified potential impacts in the form of reduction in habitat area, disturbance to key species, habitat or species fragmentation, reduction in diversity of species and Changes in Key Indicators of Conservation Value (Water Quality Etc.) A number of specific policies were identified that might result in negative impacts and these were mitigated by proposals for amendments to policies. The identified policies were as follows: Chapter 1; Objective Donabate 3, to: "Develop a continuous network of signed pathways around Donabate Peninsula and linking the Peninsula to Malahide and Rush via the Rogerstown and Malahide estuaries whilst ensuring the protection of designated sites." Chapter 1; Objective Rush 9, to: "Prepare and implement the Rogerstown Estuary Management Plan" Sheet No 6B (Rush) MD 6B.1: "Develop a marina and auxiliary and associated facilities designed and built in accordance with sustainable ecological standards and avoiding significant adverse impacts on the Natura 2000 sites and species protected by law."	None	The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan. No specific reference to Rogerstown Estuary cSAC or Rogerstown Estuary SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Northern Rail Line. See Section 3.5 for details.	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Table A2.7 Possible In-Combination Impacts Identified for South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Sutton to Sandymount Cycleway	Direct land take; Disturbance impacts during construction and operation.	Dun Laoghaire – Rathdown County Development Plan 2010-2016	The Plan has been formulated to ensure that uses, developments and effects arising from permissions based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant effects on the integrity of any Natura 2000 sites (AA, CAAS, 2010).	None	The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan.	None	None
		Dublin City Council Development Plan 2011-2017	The AA ‘Screened-in South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA for potential impacts in the form of disturbance to key species. Mitigation took the form of a proposed additional policy in the plan: GC31“That any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an appropriate assessment in accordance with Article 6(3) of the Habitats Directive.” Main threats identified to South Dublin Bay cSAC and Sandymount Strand / Tolka Estuary SPA include loss of habitat due to coastal developments such as golf courses,	None	No specific reference to South Dublin Bay cSAC or Sandymount Strand / Tolka Estuary SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Sutton to Sandymount Cycleway.		

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			<p>caravan parks and agricultural improvement Aquaculture; Fishing; Bait digging; Removal of fauna; Reclamation of land; Coastal protection works; Invasive species particularly cordgrass; Impact of hard coastal defence structures; Sea level rise.</p> <p>Policies and objectives identified that may give rise to a significant effect include:</p> <p>GCO43 "To continue to develop a linear park along the banks of the river Tolka in particular on institutional lands in the Drumcondra area as they are developed</p> <p>NC23 To promote built environments and outdoor shared spaces are accessible to all. Such Screening Assessment developments must be in accordance with the principles of Universal Design, the City Development Plan's Access For All Standards, and the National Disability Authority's 'Building For Everyone' publication.</p> <p>NC17 'To enhance and improve the provision of playgrounds, play spaces playing pitches 9including relaying such pitches using modern methods to enhance drainage and playability in various weather conditions) and recreational spaces in residential areas and in the city centre in accordance with the City Council's standards and guidelines.'</p>		See Section 3.5 for details.		

Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
None specifically	Generalised water quality issues resulting from upstream construction and development activity within Dublin urban area (see Section 3.2)	South Dublin County Council Development Plan 2010-2016	<p>Poor water quality originating within South Dublin County and entering Dublin Bay is deemed to be the County's principal potential threat to the conservation objectives of the Dublin Bay Natura 2000 sites. The AA concludes that provided that the policies and objectives of the South Dublin Bay Plan 2010-2016 with respect to water quality improvement and conservation are implemented impacts to water quality is expected to improve during the life time of the plan.</p> <p>No significant impacts from policies were identified.</p>	None	<p>The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation; impacts to groundwater and surface water and potential for indirect impacts from implementation of the Plan.</p> <p>No specific reference to South Dublin Bay cSAC or Sandymount Strand / Tolka Estuary SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the general water quality issues in Dublin Bay.</p> <p>See Section 3.5 for details.</p>		

Table A2.8 Possible In-Combination Impacts Identified for The Murrough Wetlands cSAC and The Murrough SPA

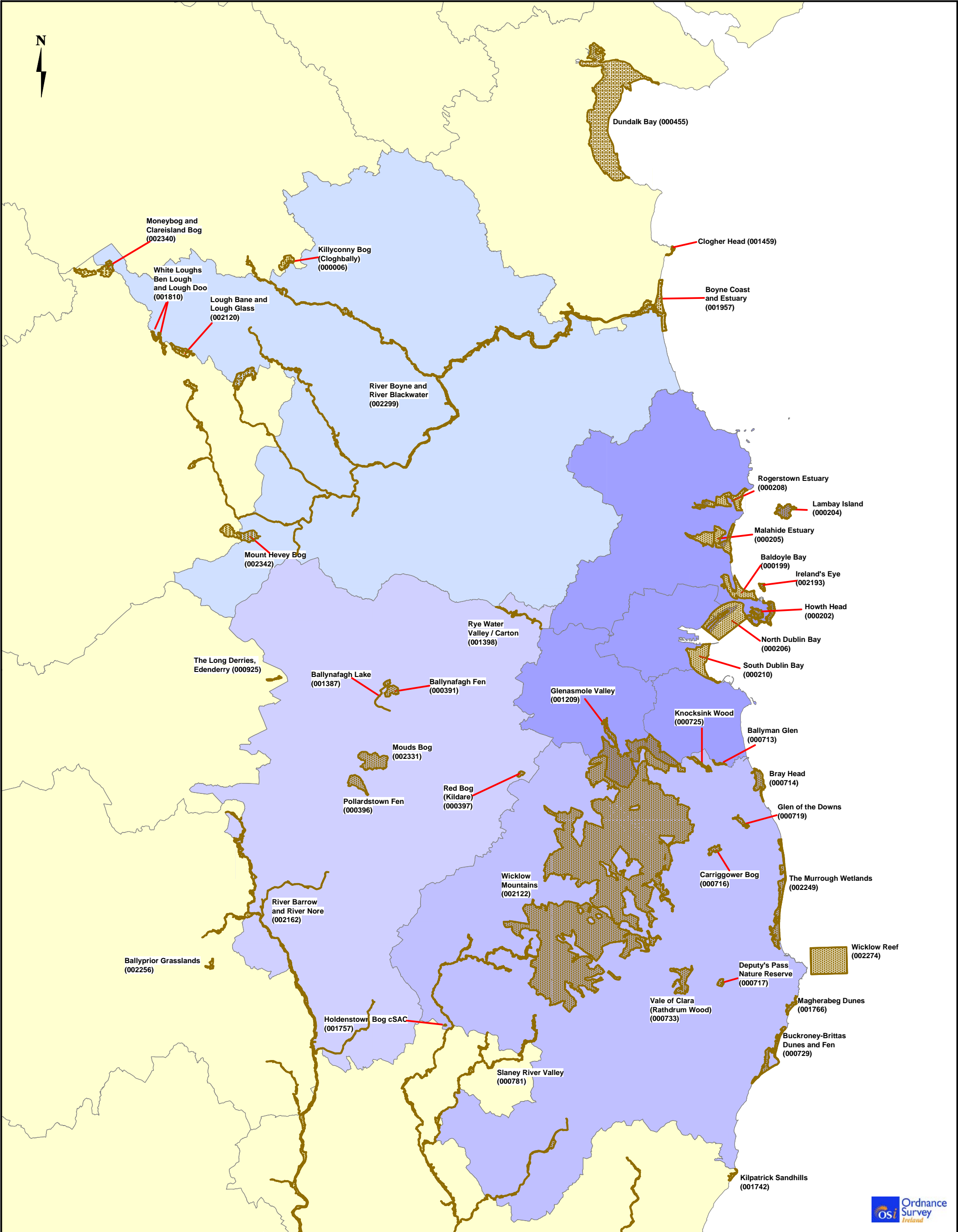
Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
Southern Line Railway	Direct land take; Fragmentation; Disturbance to fauna during construction	Wicklow County Development Plan 2010-2015	<p>The AA for the CDP identified recent farming and drainage practices and afforestation at the Murrough SPA and cSAC have greatly reduced the area and quality of the wetlands habitats - the area between Kilcoole and Newcastle is particularly affected. Some levelling of the sand hills near Killoughter has also occurred. Pollution, reclamation and further drainage would adversely affect this site.</p> <p>The AA identified the following policies as having potential to result in direct effects to The Murrough Wetlands cSAC and The Murrough SPA: CW5 'To facilitate the development of a coastal cycling and walking route.' PT2 'To promote the development of transport interchanges and 'nodes' where a number of transport types can interchange with ease. In particular to facilitate the</p>	None	<p>The Screening Report for the RPG identifies the potential for direct impact i.e. habitat loss or fragmentation from implementation of the Plan.</p> <p>No specific reference to The Murrough Wetlands cSAC and The Murrough SPA is made in the Stage 2 Assessment however a number of strategic proposals are identified that may result in direct loss of habitat and therefore could have cumulative impacts with the Southern Rail Line Railway.</p> <p>See Section 3.5 for details.</p>	None	None

¹ Regional Planning Guidelines for the Greater Dublin Area 2010-2022

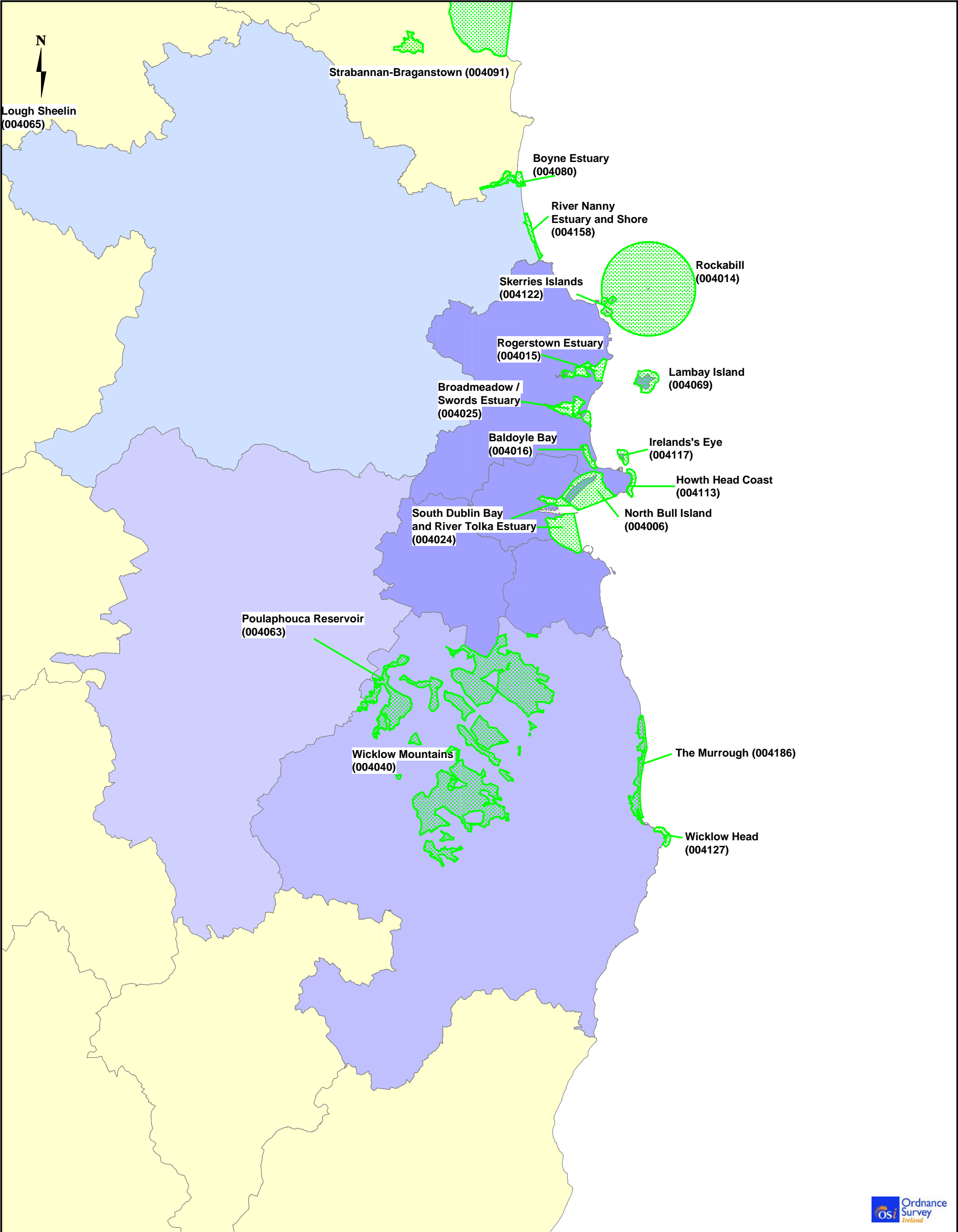
Relevant NTA Strategy Policy	Types of Possible Impact Anticipated	Relevant County Development Plan(s)	Possible impacts on the Natura 2000 site of Relevant CDP		Possible impacts on the Natura 2000 site from RPG		Possible impacts on the Natura 2000 site from other Plans and Projects
			Identified in the AA/SEA of the CDP	Identified by RPS Review of CDP	Identified in the AA of the RPG ¹	Identified in the AA/SEA of the CDP	
			<p>development of park and ride facilities at appropriate locations along strategic transport corridors to enhance existing parking facilities at and/or the improvement of bus links to the train stations in Bray, Greystones, Wicklow and Arklow.'</p> <p>PT3 'To continue to work with Iarnród Éireann on the improvement of mainline train and DART services into Wicklow and in particular, to facilitate all options available to increase capacity through Bray Head and along the coastal route south of Greystones.'</p>				

Appendix 3

Figures A3.1 to A3.3



<div><div>RPS</div><div>Innishmore, Ballincollig, Co Cork, Ireland</div></div> <div>T +353 21 4665900 F +353 21 4873742 E ireland@rpsgroup.com W rpsgroup.com/ireland</div>		<div>Project</div> <div>Greater Dublin Area Transport Strategy 2010 -2030, Appropriate Assessment, Natura Impact Statement</div>		<div>Figure A3.1</div>		<div></div>	<div>Issue Details</div> <table><tr><td>Drawn by: RM</td><td colspan="2">Project No. MCE0673</td></tr><tr><td>Checked by: AMcS</td><td colspan="2">File Ref. MCE0673Mi0001F02</td></tr><tr><td>Approved by: AR</td><td>Drawing No. Mi0001</td><td>Rev. F02</td></tr><tr><td>Scale: not to scale</td><td colspan="2">Date: 11/05/2011</td></tr></table> <div>Notes</div> <div>1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent. 2. All levels are referred to Ordnance Datum, Malin Head. 3. Ordnance Survey Ireland Licence No EN 0005011 ©Ordnance Survey Ireland and Government of Ireland</div>		Drawn by: RM	Project No. MCE0673		Checked by: AMcS	File Ref. MCE0673Mi0001F02		Approved by: AR	Drawing No. Mi0001	Rev. F02	Scale: not to scale	Date: 11/05/2011	
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Scale: not to scale	Date: 11/05/2011																			
<div>Client</div> <div>National Transport Authority</div>		<div>Title</div> <div>Special Areas of Conservation in the Zone of Influence of the Vision 2030 Greater Dublin Area Transport Strategy</div>																		



<div><div>RPS</div><div>Innishmore, Ballincollig, Co Cork, Ireland</div><div>T +353 21 4665900 F +353 21 4873742 E ireland@rpsgroup.com W rpsgroup.com/ireland</div></div>		<div>Project</div> <div>Greater Dublin Area Transport Strategy 2010 -2030, Appropriate Assessment, Natura Impact Statement</div>		<div>Figure</div> <div>A3.2</div>		<div></div>		<div>Issue Details</div> <table><tr><td>Drawn by: RM</td><td colspan="2">Project No. MCE0673</td></tr><tr><td>Checked by: AMcS</td><td colspan="2">File Ref. MCE0673Mi0002F02</td></tr><tr><td>Approved by: AR</td><td></td><td></td></tr><tr><td>Scale: not to scale</td><td>Drawing No. Mi0002</td><td>Rev. F02</td></tr><tr><td>Date: 11/05/2011</td><td></td><td></td></tr></table>		Drawn by: RM	Project No. MCE0673		Checked by: AMcS	File Ref. MCE0673Mi0002F02		Approved by: AR			Scale: not to scale	Drawing No. Mi0002	Rev. F02	Date: 11/05/2011		
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